CONSTRUCTION NEWS

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RAILWAYS.

(** denotes that this work is advertised in Engineering News.*)

*ABILENE CENTRAL.—Bids will be received until noon. March 21, at Abilene, Tex., by J. M. Wagstaff, Chairman, for construction of 56 miles main line and six miles siding and switches (labor and material complete) for Abilene Central R. R., between Abilene and Rising Star, Tex. H. J. Bradshaw, Engr., Abilene. Approximate quantities are given in the advertisement in this issue.

ALBERTA & GREAT WESTERN.—W. R. Clarke, Pres., has let the following contracts for supplies for the line: 40,000 tons of 56-lb. steel rails, to the ALGOMA STEEL CO., Sault Ste. Marie, Ont.; bolts, to the TORONTO BOLT CO., Toronto, Ont.; spikes, to the PECK ROLLING MILLS, Montreal, Que.; fish plates and angle bars, to the NOVA SCOTIA STEEL & COAL CO., Halifax, N. S. The amount of the various contracts aggregated over $3,000,000, it is stated. Noted fully on Jan. 20 and Jan. 13.

ALGOMA CENTRAL & HUDSON BAY.—Bids will be received until noon, April 15, for the clearing, grading and bridge work on the 31-mile (more or less) section of the Algoma Central & Hudson Bay Ry., between Hawk Lake Junction, Algoma Central & Hudson Bay Ry., and Hobon, Canadian Pacific Ry. For plans, specifications and details apply to C. N. Coburn, Ch. Engr., Algoma Central & Hudson Bay Ry., Sault Ste. Marie, Ont., to whom all bids should be addressed.

ARKANSAS, OKLAHOMA & WESTERN.—The W. R. FELKER CONSTRUCTION CO., Rogers, Ark., has the contract for building a connecting line about seven miles long, from Rogers east to a connection with the Monte Ne branch, and from the eastern terminus of that line at Monte Ne east via Canuck, thence southeast to Huntsville, 29 miles. The line will pass through a rough, mountainous country. The work includes two steel bridges, one over White River and the other over War Eagle Creek. Officially noted on Feb. 17.

ATCHISON, TOPEKA & SANTA FE.—See Gulf, Colorado & Santa Fe.

ATLANTIC NORTHERN.—Incorporated at Charleston, W. Va., on Feb. 21, to construct a railroad along Cheat River, from Parsons to Rowlesburg, W. Va., opening up large areas of timber lands. Capital stock of $50,000. James W. Flynn and others, of Kingwood, W. Va., are the incorporators.

BESSEMER & LAKE ERIE.—Construction gangs are grading for a second track from McCalmont, Pa., three miles south of Butler, Pa., to the Allegheny River, a distance of 18 miles. It will require a year to complete the work, which is estimated will cost $1,000,000. The new tracks will avoid curves and there will be heavy cuts and fills and 14 new bridges and culverts, shortening the old route, according to press reports. When this work is completed this company will have a double track on nearly the entire length of the road. Company has just completed grading for three additional tracks between Branchton and Keister, Pa.

BROWNWOOD NORTH & SOUTH.—Bids will be received until March 10 for clearing and grading about 18 miles of line from Brownwood, Tex., north to May. Brooke Smith is Pres., Brownwood; John Meade is Ch. Engr., Brownwood. Noted on Jan. 6.

CANADIAN NORTHERN.—P. P. ELLIOTT, Banning, Ont., has contract to take out 250,000 ties for this company. The NORTHERN CONSTRUCTION CO. has also a contract for the same company to take out 200,000 ties. Camps are situated near Banning.

CHEAT RIVER & MONONGAHELA VALLEY.—Chartered in West Virginia to build a line from a point near Albright in Preston County, W. Va., to a point near the state boundary at Cheat Haven, Pa. The incorporators are E. M. Lantz, William S. Downs, James W. Flynn, Neil J. Fortney and Julius K. Monroe, of Kingwood, W. Va. See Atlantic Northern Ry., noted above.

CHICAGO, MILWAUKEE & PUGET SOUND.—Contract has been awarded to H. C. HENRY, of Seattle, Wash., for building the Everett extension. The Everett branch will be laid with heavy steel and will follow easy grades by the way of North Bend, Tolt, Cherry, Valley and Monroe. The company already has obtained its terminals in Everett and has acquired most of the right-of-way.

CHICAGO, ROCK ISLAND & PACIFIC.—The Rock Island System, it is announced, has commenced work on improvements in Arkansas which will involve a total expenditure of $500,000. The entire line to Booneville, a distance of 129 miles, will be ballasted, the ties will be relaid and the 65-lb. rails replaced with those weighing 85 lbs. Material for this work is already arriving and the improvements are now actively under way. The terminals at Booneville are to be completed during the year, involving an expenditure of $40,000. The company also proposes to put in a number of passing tracks in order to facilitate the movement of freight and passenger trains. The Biddle shops are also to be completed. They will cost between $150,000 and $200,000. Work on these, however, is not to begin until later. The company will continue the shops at Argenta, but it desires to have even more extensive facilities for taking care of its equipment in both Arkansas and Louisiana. The improvement work on the Louisiana division of the Rock Island System which was carried on during the past year has been practically completed. J. B. Berry is Ch. Engr., Chicago.

CINCINNATI, HAMILTON & DAYTON.—Wm. Cotter, Pres. and Gen. Mgr., is stated to have announced that contracts for improvements to cost $8,000,000 will be carried out during 1910. Of this amount $2,000,000 is to be spent on the Cincinnati, Ohio, terminal; $1,000,000 reducing grades and curves and $1,000,000 for a new ore dock at Toledo. New terminal yards are also to be constructed at Toledo, at a cost of $750,000, and a new freight warehouse is to be put up, to cost $250,000. About 75 miles of line will be relaid with 85-lb. rail and eight bridges will be renewed. New rolling stock contracts call for May delivery of 25 heavy consolidated freight engines, five Pacific type fast passenger locomotives, 1,000 steel under frame box cars and 1,500 steel coal cars. The cars will cost $2,500,000, and the locomotives $500,000. Thirty-five miles of new block signals will be installed and 25 miles of double-track will be laid. F. H. Alfred is Ch. Engr. and Asst. to Pres., and W. C. Atherton is Pur. Agent, both of Cincinnati, Ohio.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—Construction will be started this spring on the Evansville, Mount Carmel & Northern extension, from Mount Carmel, Ill., south to Evansville, Ind., 43 miles.

Improvements, to cost $5,000,000, have been announced by J. Q. Van Winkle, Gen. Mgr., Cincinnati. Twelve miles of track between Galion and Cleveland, Ohio, to cost about $200,000, will be built this year, as well as the line between Miamisburg and Middletown at a cost of over $700,000. A new roundhouse will be erected at Mattoon, Ill., costing $150,000. The new shops of the company at Beech Grove, Ind., will be finished at a cost of $3,000,000. Other improvements made, including double-tracking in and near Indianapolis, which will cost $1,000,000.

DELAWARE & EASTERN.—A. M. Moreland and Walter B. Trowbridge were appointed receivers of the Delaware & Eastern R. R. Co. on Feb. 25, upon the application of Joseph H. Holmes, a judgment creditor, in the United States Circuit Court. The appointment was made by Judge Hough, with the consent of counsel to the railroad. This company owns a completed railroad running from East Branch to Arkville, N. Y. Its road was leased to the Delaware & Eastern Ry. Co. At the same time the same receivers were appointed for the Delaware & Eastern Ry. Co., upon application of Maurice E. Eairer, holder of an overdue note of the railway company. This company owns a right-of-way for a railroad from Arkville to Schenectady, N. Y., but has not yet completed its road.

EVANSVILLE, MOUNT CARMEL & NORTHERN.—See Cleveland, Cincinnati, Chicago & St. Louis Ry.

FLORIDA RY.—We are officially advised that it is the intention of this company to build an extension of its line from Live Oak to Jacksonville and Fernandina, Fla., as reported in issue of Feb. 10. Company is building the line under the direction of its own officers, and will purchase the equipment with which to operate it. Company has not placed orders for equipment yet. T. P. Alston is Gen. Supt., Live Oak, Fla.

GULF, COLORADO & SANTA FE.—Contracts have been awarded as follows for the proposed extension from Lometa to Eden, Tex., about 100 miles: The first section, 30 miles, to MOREY & FAULHABER, Chemical Bldg., St. Louis, Mo.; the second, 30 miles, to LEVY & OWENS, of Galveston, Tex.; and the third to the C. H. SHARP CONTRACTING CO., Sharp Bldg., Kansas City, Mo., for the remaining 40 miles. F. Merritt, Galveston, Tex., is Ch. Engr. Noted on Feb. 24.

INDIANA.—Track elevation at Fort Wayne, Ind.—See item under Miscellaneous Contracts.

INTERCOLONIAL RY.—Bids will be received by A. W. Campbell, Chairman, Government Railways Managing Board, Ottawa, Ont., until March 15 for the construction of a line of railway between George's River and Sydney Mines, N. S., a distance of 9.09 miles. Plans, etc., at the Station Master's office, Sydney Mines, N. S., and at the office of W. B. McKenzie, Ch. Engr., Moncton, N. B.

An extension will also be built between Chatham, N. B., and Nelson, eight miles.

KANSAS CITY, MEXICO & ORIENT.—Contract has been let to ROACH & STANSELL, of Memphis, Tenn., for the construction of 50 miles of line between Edwards and San Angelo, Tex., for the Kansas City, Mexico & Orient R. R.

KANSAS, LAWTON & GULF.—We are officially informed that contract for grading the first 15 miles of this railway, between Randlet and Walters, Okla., will be let this month. Financial arrangements have also been made for the completion of this entire project. J. M. Bellamy, Vice-Pres., Walters, Okla. Noted fully on Feb. 10.

LEHIGH VALLEY R. R.—About $1,000,000 will be spent, it is said, in constructing a tunnel through Bear Mountain at East Mauch Chunk, Pa. The tunnel, which will be about a mile long, will extend from the station half way to Packerton, and will cut off the 3-mile curve around the nose of the mountain. E. B. Ashby is Ch. Engr., 143 Liberty St., New York.

LONG ISLAND R. R.—Ralph Peters, Pres., has announced to the Public Service Commission the company's plans to spend more than $3,000,000 in the next few months improving the passenger facilities at the Jamaica Terminal and making that point one of the best equipped railroad centers in the country. It is planned to have all freight at Jamaica handled on underground or street level tracks, while the passenger trains will run into a modern station on an elevated structure. Of the money to be spent, $701,000 is to be expended on a new terminal, $730,000 in eliminating grade crossings, about $645,000 on other grade work; for new trackage, $220,000 and for a freight handling yard, $170,000. Definite plans regarding the improvements will be forwarded to the Public Service Commissoin just as soon as they are prepared.

NORFOLK & WESTERN.—Contract has been awarded to JOSEPH H. SANDS, Roanoke, Va., for all roadbed construction necessary for the low-grade cut-off around Petersburg, Va. The line is to be 8.91 miles long. Estimated cost, $750,000.

Contract has been let to A. M. VALZ, of Staunton, Va., for excavation work on the extension of Dry Fork branch road in McDowell County, W. Va.

Contract has been awarded to CARPENTER & BOXLEY, of Roanoke, for three miles of double track and several tunnels east of Huger, W. Va. This contract was previously awarded to J. R. Serpell & Son, of Louisville, Ky., as noted on Feb. 10.

PENSACOLA, MOBILE & NEW ORLEANS.—J. M. KINNEY and CHAS. W. MERRITT, of Pensacola, Fla., have been awarded the contract by Henry McLaughlin, Pres. of the Pensacola, Mobile & New Orleans Railroad to grade several miles of roadbed in Baldwin County, Ala.

PHILADELPHIA & READING.—Contract for concrete construction work, grading and excavation of rock between Valley Forge and Perkiomen Junction, Pa., has been awarded to the McNICHOL PAVING & CONSTRUCTION CO., of Philadelphia, in connection with the widening of the P. & R. roadway to carry four tracks instead of two, between Norristown and Reading. Estimated cost, $175,000.

REID NEWFOUNDLAND RY.—The Government bill providing for the construction of 250 miles of railway has been passed by the legislative council without division. The new lines will be branches of the present Newfoundland railway system. G. H. Massy is Ch. Engr., St. Johns, N. F.

SAN ANTONIO, RIO GRANDE & TAMPICO.—Contracts are to be let at once for building this line. The plans call for a line from San Antonio, Tex., southwesterly to a point in La Salle County, about 90 miles. There will be three bridges. The HARRISON ENGINEERING CO., 42 East 23d St., New York, has the general engineering contract. J. F. Edwards is Pres.; W. A. Cullen, Gen. Mgr., and G. W. Nock, Ch. Engr., San Antonio. Noted last week.

ELECTRIC RAILWAYS.

WASHINGTON, N. J.—The Easton & Washington Traction Co. has awarded the contract for building an extension from Port Murray to Lake Hopatcong, via Hackettstown, N. J., to the M. P. McGRATH CONTRACTING CO., 409-410 Trust Bldg., Easton, Pa. W. O. Hay, Easton, is Mgr. Noted on Jan. 27.

HUNTINGDON, PA.—We are officially advised that the PENNSYLVANIA EXCAVATING CO., of Allentown, Pa., has been awarded the contract by the Huntingdon, Lewistown & Juniata Valley Traction Co., of Huntingdon, Pa., for all grading on its lines, running from Huntingdon to Mount Union and from Huntingdon to Lewistown, a distance in all of about 50 miles. The grading of these roads is to be started as soon as the frost is out of the ground and the contractors have agreed to put from 600 to 800 men on this work and to push same to completion as rapidly as possible. This will make one of the best and most complete interurban electric lines in the central part of Pennsylvania, running from Huntingdon, the county seat of Huntingdon County, to Lewistown, the county seat of Mifflin County, the traction lines will pass through the Kishacoquillas Valley. It will also be a connecting line for trolley service between Pittsburg and Philadelphia. R. W. Jacobs is Pres. and J. M. Starr, Secy. and Treas., Huntingdon.

WAYNESBURG, PA.—Officials of the Waynesburg & Blacksville Traction Co., promoters of a trolley line from Waynesburg to Pittsburg, have started to buy options held on property which is crossed by the proposed right-of-way. The options expired last week. The Dunkard Valley Co.'s holdings between Waynesburg and Morgantown, W. Va., have been purchased and the money paid over. This, with the completion of the Pittsburg-Waynesburg branch will join Pittsburg and Morgantown by through-trolley service. As noted on Nov. 11, '09, this company was chartered to build an electric railway from the Pennsylvania and West Virginia state line at Robert's Run along the Roberts and Smith Creeks, 14 miles, to Waynesburg, has been granted authority to build about 50 miles of extension. Samuel Eakin, Wadestown, W. Va., is Pres. The other incorporators are R. E. Lent, Chas. H. King, L. L. Thomas and N. B. Patterson. Capital stock, $84,000.

JOHNSTOWN, PA.—The Johnstown Traction Co. was granted a charter at Harrisburg, Pa., on Feb. 24, with an authorized capitalization of $500,000. Of 500 shares issued, 496 are held by Evan M. du Pont and one each by G. Nelson Smith, Samuel Young, Joseph McAneny and Percy Allen Rose. Under the charter issued the company is authorized to operate trolley lines in Johnstown, Franklin, Dale, Westmont, Ferndale, Scalp Level, Upper Yoder Township, Lower Yoder Township, Stonycreek Township and Richland Township in Cambria County and in Windber and Paint Boroughs and Conemaugh and Paint Townships in Somerset County.

TOWANDA, PA.—The Bradford County Traction Co. plans to commence construction work about April 1 on its projected 16-mile railway between Towanda, Wester, Milan, Greenslanding, Athens, Sayre and Waverly. The location of the power plant has not been definitely decided upon. Capital stock, $50,000. The officers are: Pres., George B. Hill, of Towanda; Secy., John C Ingham, of Towanda. On the Board of Directors are: E. Floyd Kizer, W. Worth Jennings, Cortez H. Jennings, Edward Whalen and George R. Hill, of Towanda, and O. L. Haverly, of Athens. The company has a franchise in Towanda Borough and has an agreement with the Waverly, Sayre & Athens Co. to either run its cars into Waverly or transfer in Athens. The company will at once file extension rights to Athens on both sides of the Susquehanna River; also to Canton and Troy, via Sugar Creek Valley; also to Monroeton, Powell and New Albany on the south. In time, lines may be built to these places, the extension rights being filed to protect the traction company.

ROANOKE, VA.—We are officially advised that the Mill Mountain Incline Co. has secured right-of-way and capital for its proposed line and has made surveys. It will be one-half mile long up Mill Mountain. Noted on Jan. 6. The top of the mountain will be converted into a pleasure park and many summer cottages will be built. The altitude is nearly 2,000 ft. above the sea and nearly 1,000 above the level of the city. A. B. Hammond is Pres.; C. Markely, Vice-Pres., and O. L. Bottomley, Secy. and Treas. Wingate & McGhee are the Engrs., Roanoke.

WHEELING, W. VA.—The Ohio Central Elec. Ry., between Wheeling and Uhrichsville via Cadiz, will be constructed, and the residents of Cadiz and vicinity will raise the $125,000 necessary to start the construction of the line, if possible. At a recent meeting held in Cadiz a committee was appointed to secure the necessary right-of-way between Cadiz and Urichsville, as this is now the only thing that stands in the way of the building of the road. The proposed road will cost over $1,000,000 and will have its terminus in Martins Ferry, running west through Colerain, Harrisville and thence to Cadiz. It has not been determined if the road will go through New Athens. From Cadiz it will run to Uhrichsville, where it will connect with a line that reaches Cleveland, making a complete trolley line from the lakes to the Ohio River. The Electric Construction Co., of Kansas City, Mo., has agreed to construct the road if the citizens of Cadiz will purchase $125,000 worth of the bonds. The construction company will float the balance of the bonds. Noted on July 29, '09. A. Evans Townsend is Gen. Mgr., Cadiz, Ohio.

MORGANTOWN, W. VA.—The Sabraton Ry. has been sold to Harry R. Warfield, of the Union Utilities Co., of Morgantown. Extensions are planned, it is stated.

RUTHERFORDTON, N. C.—The Isothermal Traction Co., of Rutherfordton, has been chartered with $4,000 capital (which may be increased to $100,000), to build an electric railway from Rutherfordton to Gastonia, N. C., 50 miles. Authority is granted to build branches not exceeding 50 miles. The incorporators are T. S. Finch, of Charlotte, N. C.; J. F. Flack, W. A. Harrill, E. B. Harris and C. F Geer, of Rutherfordton, N C.

LAGRANGE, GA.—The City Council has granted a 50-year franchise to C. M. Awtrey and G. E. Dallis, LaGrange, and others, to construct an electric railway in LaGrange.

UHRICHSVILLE, OHIO.—See Wheeling, W. Va.

INDIANAPOLIS, IND.—At the annual meeting of the stockholders of the Indianapolis & Cincinnati Traction Co., held in the Terminal and Traction Bldg., Indianapolis, on Feb. 25, the trustees outlined a plan on which they are working for a reorganization of the company, which, in brief, is a proposed exchange of bonds for the receiver's certificates. The proposed extension of the line from Connersville, Ind., to Hamilton, Ohio, 30 miles, was discussed, and should the plan of the trustees prove successful this probably will be brought about, as a majority of the stockholders favor it. This, however, is a matter that rests with the board of directors. Charles L. Henry, Receiver and President of the company, made his annual report, which shows an increase in 1909 of about 8% over 1908. The present directors were re-elected. They are W. T. Durbin, W. J. Alford, John F. Wild, John J. Appel, George A. Ball and Theodore F. Rose. Noted on Feb. 17.

DECATUR, IND.—The Fort Wayne & Springfield Ry. Co. will let contracts during the next 60 days for the construction of twelve miles of track, using 70-lb. rails, 10,000 oak ties and 600 40-ft. 7-in. top cedar poles. The company will also erect a 20-ft. steel bridge. W. H. Fledderjohann is Gen. Mgr., at Decatur. Noted on Feb. 24, under Portland, Ind.

LANSING, MICH.—We are officially informed that the contract for the construction of the Lansing & Owosso Electric Ry., a distance of 25 miles, has been awarded to W. E. TENCH & CO., 210 John R St., Detroit, Mich. This firm has just completed the contract for building the line from Jackson to Lansing, Mich., for the Michigan United Railways, and have transferred their equipment to the new work, which is practically an extension of this line. They have established their headquarters at Morrice, Mich.

The Lansing & Northeastern Elec. Ry. Co. has grading under way between Morrice and Shaftsburg. T. W. Atwood is Pres. Noted fully last week.

MATTOON, ILL.—A franchise was granted the Mattoon City Ry. Co. recently by the Charleston City Council, for the construction of an electric line extending from that city to Paris, thus establishing, when the line is completed, direct connection by trolley between Mattoon and Indianapolis. Chas. H. Cox is Gen. Mgr.

SPRINGFIELD, ILL.—The Springfield Traction Co. has been incorporated. It is proposed to construct an electric railroad from Springfield through the counties of Sangamon and Christian, to Pana, and from Springfield through the counties of Sangamon, Montgomery and Fayette to Vandalia. The principal offices are Springfield, and the capital stock is nominally $10,000. The incorporators and first Board of Directors are: Ernest H. Helmle, George B. Gillespie, A. M. Fitzgerald and George Riordan, all of Springfield, Ill.; and C. E. Hazlett, of Rochester, Ill.

FORT SMITH, ARK.—The Fort Smith & Interurban Railroad Co., recently chartered, will build 25 miles of line from Fort Smith to Greenwood, Ark., via Bonanza and Jenny Lind. Final survey has not been made. George Sengel is Pres. and Gen. Mgr.; Jerome Sengel, Secy., Treas. and Ch. Engr.; other directors are C. E. Warner, Herschel Hunt and George Sengel, Jr., all at Fort Smith, Ark.

SAN MARCOS, TEX.—C. L. Hopkins, of San Marcos, has applied to the City Council for a franchise to construct an electric railway in San Marcos.

SACRAMENTO, CAL.—T. T. C. Gregory, Pres. of the Vallejo & Northern R. R. Co., has stated that this company has sold bonds for the construction of this road and that the line will be built this year. As noted on Dec. 9, '09, this company is the successor to the Vallejo & Northern Elec. Ry. Co. Company will build from Sacramento to Woodland, Davis, Suisun, Vacaville, Fairfield, Dixon, Winters and Vallejo, at which point steamboat connection will be made for San Francisco. The line will be 110 miles in length. The overhead trolley will be installed on the city lines and the third rail will be used on the interurban lines. Capital stock authorized, $2,500,000. T. T. C. Gregory, Fairfield, is Pres. and Gen. Mgr.; W. R. Madden, Fairfield, Vice-Pres.; Wm. Pierce, Suisun, Secy.; E. D. Holly, Suisun, Treas.

VALLEJO, CAL.—The Vallejo Traction Co., recently organized, has applied to the Board of City Trustees of Vallejo for permission to construct and operate over and upon the streets of this city a standard-gage railroad, to be propelled by either steam, motor or electricity. The new concern, which is capitalized at $200,000, will at once begin the construction of a line from White Sulphur Springs, six miles northeast of this city, to tidewater in Mare Island Channel. The incorporators and directors of the new company are: H. M. Meacham, Dr. E. Z. Hennessey and Joseph Levinson, of Napa, Cal.; G. E. Doty, of Vallejo, and Theo. A. Bell, of San Francisco.

PROVO, UTAH.—The Board of County Commissioners has granted to Jesse Knight a 50-year franchise for an interurban electric railway from the south to the north boundaries of Utah County.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—The Bureau of Yards and Docks, Navy Department, Washington, D. C., is preparing plans and specifications for condensing and piping equipment for one 1,500-KW. turbo generator to be installed at the navy yard, Boston. The equipment includes one surface condenser, one motor-driven circulating pump, one steam-driven dry vacuum pump, one motor-driven hot well pump, with steam, water, air, drain and electrical connections. The condenser is to be used in connection with a 1,500-KW. Parsons type turbine, and is to be designed to condense not less than 30,000 lbs. of exhaust steam per hour with cooling water at 60° Fahrenheit temperature, maintaining an absolute pressure at the condenser exhaust flange of not more than two inches of mercury, referred to a 30-in. barometer and both reduced to 32° Fahrenheit temperature. The contractor is to make all connections to the equipment provided by him as well as all connections between such equipment and present installations. The time allowed for the completion of the work will be four calendar months from date of contract. Plans and specifications should be ready for distribution in about three weeks.

BOSTON, MASS.—The Boston & Northern Street Ry., Boston, Mass., will reconstruct its power plant on Merrimack St. Improvements to be made include the installation of two high-pressure boilers and a 1,200-KW. generator and a 150-ft. chimney with a 19-ft. base. G. W. Palmer, Jr., is Electrical Engr.

LEOMINSTER, MASS.—The Selectmen have awarded contract to the LEOMINSTER ELECTRIC LIGHT & POWER CO. for street lighting for one year. The new contract calls for 84 tungsten lamps of 60 c. p. to replace 21 arc lamps now in use. The 25-c. p. incandescent lamps are to be replaced with 99 tungsten lamps of 40 c. p. The new lamps are to be in operation by April 1.

ROCHESTER, N. Y.—See item under Sewerage.

BROOKLYN, N. Y.—The Edison Electric Illuminating Co., 360 Pearl St., Brooklyn, will expend about $2,500,000 for the equipment of its Pearl St. plant. W. F. Wells is Gen. Supt.

ALBANY, N. Y.—The Legislature on Feb. 15 passed the bill appropriating $500,000 for a site and construction of a power-house for the capitol and education building in Albany.

TRENTON, N. J.—Bids were opened on Feb. 7 by S. W. Kirkbride, Supervisor New Jersey State Prison, for furnishing and installing complete seven 65-HP. electric motors, including wiring, belting, repairs, etc. Contract has been awarded to the ADAMS ELECTRIC CO., of Trenton.

PITTSBURG, PA.—The West Penn Railways Co. has awarded contract to the WESTINGHOUSE ELECTRIC & MFG. CO., 307 Fifth St., Pittsburg, for two 12,000-HP. steam turbines and two turbines of 200 HP. each.

PHILADELPHIA, PA.—The Bureau of Yards and Docks, Navy Department, Washington, D. C., is preparing plans and specifications for certain power plant equipment for the navy yard, Philadelphia. The work includes, in general, the following: Condenser for 500 KW. turbo-alternator; condenser for 1,000-KW. turbo-alternator; three turbine-driven centrifugal pumps for circulating water, each to have capacity sufficient for the 500-KW. turbo-alternator; turbine-driven fire pump, capacity of 1,500 gallons per minute against a 300-ft. head; 3,000-HP. feed water heater; c.-i. piping for circulating water; steam piping to main turbines and pump turbines; exhaust piping from main turbines and pump turbines; cutting necessary openings in walls and floors; rearranging existing piping as may be necessary to clear new work; relief valves; free air exhaust main; necessary supports except concrete foundations for condensers, pumps and piping; pipe covering for steam lines; and thermometers, gages and all fittings, drains and other auxiliaries that may be necessary for a complete condensing equipment. Plans and specifications should be ready for distribution in about three weeks.

HUNTINGDON, PA.—The Raystown Water Power Co., which is constructing an electric power plant along Raystown branch, below Huntingdon, has awarded contracts, it is reported, for a portion of the machinery, as follows: To the WESTINGHOUSE CO., of Pittsburg, for generators, aggregating 4,000 HP., the switchboard and other electrical apparatus to be used in connection with the generators, and to the TEFELL WHEEL CO., of Springfield, Ohio, for four turbines, all the machinery to be delivered by June 1.

FREDERICK, MD.—The Frederick R. R. Co. expects to award contracts soon for an engine and generator with a rating of from 300 to 400 KW. to replace a 14 × 26 × 36-in. steam engine and a 200-KW., 500-volt generator. W. S. Taylor is Gen. Mgr.

BUENA VISTA, VA.—The Buena Vista Light & Power Co. is arranging to make improvements to its plant and increase its water power.

LONSDALE, TENN.—Contract for lighting here has been awarded to the KNOXVILLE RY. & LIGHT CO.

MORRISTOWN, TENN.—See item under Water Supply—Irrigation.

CLEVELAND, OHIO.—The Kelly Island Lime & Transport Co. is planning to operate more of its quarry machinery at Akron, N. Y., and Martin's Station, Ohio, by induction motors. The company has awarded contracts to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for new apparatus, which includes three 250-KW. transformers, one 250-HP., one 200-HP., one 75-HP., two 50-HP., one 150-HP. and four 15-HP. induction motors.

COLUMBUS, OHIO.—The Board of Managers of the Ohio State Penitentiary has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for additional equipment for the state prison power plant, including two 22-in. × 40-in. × 36-in. heavy-duty, cross-compound, condensing engines, operating at 120 r. p. m. with steam pressure at 150 lbs. and a 26-in. vacuum, direct connected to a 600 kva., 480-volt, 3-phase, 60-cycle alternator manufactured by the Allis-Chalmers Co.

INDIANAPOLIS, IND.—The proposed lighting fixtures, to be installed in the City Hall will cost about $15,000. Rubush & Hunter, of Indianapolis, are Archs.

BLOOMINGTON, IND.—Bids are asked until March 5 by John W. Cravens, Secy., Indiana University, Bloomington, for plumbing, heating, lighting, steam mains, tunnel and sewerage, for the new science hall, Indiana University. Plans and specifications may be had by addressing Professor A. L. Foley, Bloomington, or may be seen in his office.

FORT WAYNE, IND.—Bids will be received until March 7 by the Board Public Works for furnishing and installing a 1,500-KW. steam turbine generator and surface condensor. H. W. Becker is Clk.

TERRE HAUTE, IND.—The Terre Haute, Indianapolis & Eastern Traction Co. is planning to install a new substation on its Dunreith-Newcastle division. D. F. Roach, of Terre Haute, is Purchasing Agt.

KALAMAZOO, MICH.—The Board of Education of Kalamazoo, have elected Brush, Anderson & Ammerman, Engrs., Penobscot Bldg., Detroit, Mich., to prepare plans and specifications for a new heating, ventilating and power plant for the Lake St. school of Kalamazoo. Plant to be installed in June. H. H. Buckhout is Secy.

DETROIT, MICH.—Pollmar & Ropes, Archs., 23-24 Cleland Bldg., Detroit, have let the following contracts for the new power plant for the Gordon-Pagel Co., bakers, 477 Chene St., Detroit: Structural iron work to H. B. LEWIS, 45-57 Joseph Campeau; masonry, to GEORGE D. NUTT, 16 Peninsular Bank Bldg., Detroit, plumbing to H. SHAPERO, 253 Gratiot Ave., Detroit.

JOLIET, ILL.—The SANITARY DISTRICT OF CHICAGO, of Chicago, Ill., has been awarded contract for furnishing electricity for lamps and motors for the Joliet penitentiary at 1 ct. per KW.-hour.

ROCKFORD, ILL.—The new plant which the Barnes Drill Co. is building in this city, it is reported, will be equipped for electric motor drive throughout. The company is in the market for equipment for power plant, including a 75 to 100-KW. direct-current generator, 100-HP. Corliss engine, boilers and heaters. Estimates are also being taken for a 3-ton electric traveling crane and other apparatus.

*GALESBURG, ILL.—Bids will be received by B. J. Huff, Jr., City Clk., until noon, March 21, for one type of steam engine generally known as the Corliss Valve, which will be described in the specifications as Type A.; one type steam engine generally known as Tandem Compound Automatic, which will be described in the specifications as Type B; one alternating current generator and exciter which will be described in the specifications as Type C; one combination unit of steam turbine, alternating current generator and exciter, which will be described in the specifications as Type D; one switchboard.

GALESBURG, ILL.—Plans are being prepared by F. M. Connelly and A. W. Knutson, City Engr., to install a new electric lighting system in the business section of the city. Present plans provide for about 300 posts each carrying five lamps. The city is considering the question of enlarging the municipal electric light plant.

KENOSHA, WIS.—Thomas B. Jeffery & Co., of Kenosha, Wis., are preparing to increase their power plant. New equipment will include an Allis-Chalmers unit comprising a 24-in. and 48-in. × 42-in. heavy-duty, cross-compound engine, direct connected to a 1,000-kva., 480-volt, 60-cycle, 3-phase, 100 r. p. m. alternator. The engine will operate with a steam pressure of 130 lbs. and a 26-in. vacuum.

CEDAR RAPIDS, IOWA.—The Cedar Rapids & Marion City Ry. Co. has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a complete railway generating unit, consisting of a 22 and 46 × 48 heavy-duty, cross-compound engine, receiving steam at 150 lbs. pressure and exhausting into a 26-in. vacuum, direct connected to an 800-KW., 600-volt, 100 r. p. m. generator.

ELDON, IOWA.—Surveys have been made by E. J. Moore on the Des Moines River from Eldon to Ottumwa, with a view to erecting a dam above Eldon for developing power in Eldon and vicinity.

MINNEAPOLIS, MINN.—Extensions and improvements will be made by the Minneapolis General Electric Co. this year to cost about $755,000. Improvements will include the following: An addition to the Taylors Falls station and transmission lines from Taylors Falls to Minneapolis, $400,000; so-called short extensions in Minneapolis, $150,000; underground work in Minneapolis, $70,000; remodeling substation "A," $50,000; rebuilding Garfield Ave. substation and cable line to substation "A," $25,000; tie lines from Main St. station to substation "A," $30,000; additional feeder lines in center of city, $30,000. The equipment of the Taylors Falls plant will be increased by the installation of two turbine wheels, which will increase the output of the station from 10,000 to 15,000 KW. A. W. Leonard is Vice-Pres. and District Mgr.

Plans are being prepared for a new power station on the campus of the State University. Estimated cost, about $150,000. Prof. J. J. Flather is interested.

LARAMIE, WYO.—A 30-year franchise has been granted to E. J. Bell and R. D. Stewart, of Laramie, Wyo., to supply electricity here for lamps and motors, power to be obtained from Nach's Fork and Libbey Creek. The plant is to be located in the mountains, 30 miles distant and will develop about 4,600 HP. Estimated cost, about $300,000.

ST. LOUIS, MO.—Contract for furnishing and installing in the new power-house of the City Insane Asylum four water-tube boilers has been awarded to the JOHN O'BRIEN BOILER WORKS, St. Louis, at $22,800, and for two automatic engines, two 3-wire D. C. generators and switchboards, to the BROWNELL CO., of St. Louis, at $4,438.

MIDLAND, TEX.—The Midland Water Works & Power Co. is contemplating the construction of a power and ice plant. Estimated cost, $40,000.

TRINIDAD, COLO.—The [illegible]ter Department is contemplating the i[illegible]llation of a "booster station," consisting [illegible] two small centrifugal pumps run by el[illegible] motors to provide a better pressure on [illegible] south side of the city. Estimated cost [illegible]15,400. W. R. Lewis is Supt.

SALIDA, COLO.—The SA[illegible]A LIGHT, POWER & UTILITY CO. and [illegible] City Council have agreed on rates for [illegible]ctrical service, by which the city and [illegible]te consumers get a reduction of from [illegible] 33⅓%. The City Council has awarded a [illegible]ar contract to the company for street li[illegible]ing, at $72 each per year for arc lamps. [illegible]e company is to furnish electricity for co[illegible]rcial lighting at the rate of 10 cts. per [illegible]-hour and 12 cts. per KW.-hour for resid[illegible]al lighting.

DENVER, COLO.—The Denv[illegible] Gas & Electric Light Co. has perfected [illegible] to spend nearly $1,000,000 in extensio[illegible] improvements during 1910. The lar[illegible] portion of this sum is to be used in [illegible]nding gas mains to the Washington [illegible]k district, Montclair, Elyria and Globevil[illegible] Frank W. Frueauff is Gen. Mgr.

SILVER CITY, N. MEX.—T[illegible] Gila River Power Co., has been incorpo[illegible]d, with a capital of $6,000,000 and hea[illegible]quarters at Silver City. The directors [illegible] Thomas Lyons, of Gila; William D. M[illegible]y, of Silver City; John R. Bartlett, 2 W[illegible] St., New York.

SANTA FE, N. MEX.—Pla[illegible] are being made by the Rio Lucero Pow[illegible] Co. to extend its transmission lines to T[illegible]os and vicinity for which rights-of-wa[illegible] have been secured.

SEATTLE, WASH.—Plans are being prepared by the American Gas & Electric Co for the construction of a produc[illegible] gas plant here. Estimated cost, about $[illegible]0,000.

GEORGETOWN, WASH.—Franchise has been granted to Robert M. Jones to construct and maintain gas, electric light and power plants here.

OTHELLO, WASH.—The Othello Improvement Co., of Seattle, has awarded contract to the NORTHWEST BRIDGE CO., California Bldg., Tacoma, Wash., for the construction at Othello of a power house, to furnish electric light and power for city, at $17,000. Arrangements have also been made with the same company for installing a street lighting system and for laying 116,000 sq. ft. of cement walks.

SPOKANE, WASH.—The Commonwealth Power & Water Co. has been incorporated in Spokane County by J. E. Burns, E. F. Waggoner, F. W. Dewart, L. H. Brown and Carl Ultes, Jr., of Spokane, to spend $5,000,000 in developing power on the Spokane, Columbia and Snake Rivers. This will be in connection with an extensive irrigation plant designed to supply moisture by artificial means for a large tract of land near this city, also providing light and power for a number of towns in the district.

CHEHALIS, WASH.—Bids will be received by the City Clerk until March 7 for wiring, heating and plumbing work at the city hall.

CHEHALIS, WASH.—The Centralia & Chehalis Gas Co. has let contract for gas tank to the NORTHWEST BRIDGE CO., California Bldg., Tacoma. Concrete with diameter of 89 ft., 23 ft. in depth. Cost, $15,000.

*TACOMA, WASH.—We are officially advised that bids were received as follows on Feb. 21 by H. T. McGregor, Comr. Pub. Wks., for constructing the headworks and tunnel for a hydroelectric power plant on the Nisqually River. The work will consist of a concrete diverting dam, intake and settling channel, with necessary screens and gates, and a concrete-lined tunnel, 10,015 ft. long. The bids follow: WRIGHT, SWEENEY & CUMMINGS, Tacoma, $655,225 (awarded contract); Hans Pederson and Olaf Olson, Tacoma, $683,691; B. W. Kibler, 212 North J St., Tacoma, $666,235. Estimated cost, $637,575. Frank C. Kelsey is Ch. Engr.

HAYWARD, CAL.—Bids are asked by the Board of City Trustees until April 6 for the purchase of an electric light and power franchise. A new company, the People's Light & Power Co., has petitioned for this franchise.

OAKLAND, CAL.—The Patterson Water Co. has been incorporated with a capital of $200,000 to develop water for hydraulic, irrigation and domestic use on the Patterson ranch, a 20,000-acre tract in Stanislaus County. The directors are: Vance McClymonds, S. E. Smyth and C. C. Hamilton, all of Oakland.

SONORA, CAL.—D. A. James has filed a notice of appropriation of 20,000 cubic inches of water in the main Tuolumne River, to be utilized for power and irrigation purposes.

LOS ANGELES, CAL.—The City Engineer has estimated the cost of lighting Pico St. as follows: 188 ornamental lamp posts, $20,680; 188 transformers, $2,820; current and lamps, $10,966.

Bids are asked by the Board of Supervisors until 2 p. m., March 28, for a certain franchise granting right to construct and operate and maintain for a period of 30 years an electric pole and wire system upon certain public highways in the county.

FRESNO, CAL.—Notice of appropriation of water rights in Fish Creek, four miles above its mouth, has been filed by William S. Douglass and C. M. Russell, of Fresno, to be utilized to generate electricity. A diverting dam is to be constructed across the river, and the water conveyed through a tunnel 3¼ miles in length, to the power site.

TUCSON, ARIZ.—The Great Western Power Co. has submitted a proposition to the City Council offering to furnish electricity and water here. The company proposes to impound the waters in Sabino Canyon in the Santa Catilina Mountains, to be utilized for irrigation and domestic purposes and to generate electricity. It is estimated that from 2,500 to 3,000 HP. can be generated at the canyon. A committee has been appointed to investigate the offer with a view of contracting for additional water for Tucson.

MESA, ARIZ.—The South Side Gas Co. has decided to erect a new gas plant. H. L. Chandler is Supt.

PRESCOTT, ARIZ.—The City Council on Jan. 19 passed an ordinance granting to H. S. Gray, for the Arkansas Natural Gas Co., a franchise to furnish natural gas from the Cadds field near Shreveport, La., for a period of 30 years. It is understood that the Arkansas Natural Gas Co. contemplates running a 16-in. main from the Cadds field near Shreveport to Prescott and Little Rock, to supply these cities with natural gas.

PHOENIX, ARIZ.—Shipman, Denny & Rhame, Engrs., San Francisco, Cal., in a report to the Municipal Ownership League, has estimated the cost of a municipal power plant for Phoenix at $174,000, including steam auxiliary and transformer plant, in case Government power is utilized.

BLACK FOOT, IDAHO.—The Idaho Consolidated Power Co. has been granted a franchise to construct and operate an electric light plant and telephone system here.

IDAHO FALLS, IDAHO.—The Idaho Power & Transmission Co. is contemplating the construction of an electric power plant on the Warm River this year. Estimated cost, about $600,000; also improvements to its plant in Idaho Falls. Estimated cost, about $200,000. A. G. Changnon is Supt.

RUPERT, IDAHO.—The Secretary of the Interior has awarded the following contracts in connection with electric power to be furnished by the United States to distributors at the towns of Heyburn, Rupert and Burley, Idaho: To FRED. N. VICTOR, as trustee for the Rupert Electric Co., for electric power to be delivered at the town of Rupert; to ERNEST BEARDSLEY SKINNER, electric power delivered at the town of Heyburn, and to the village of Burley. In each case a detailed schedule of rates to be paid to the United States is provided under the specifications and each bidder guaranteed that each calendar year from and including Jan. 1, 1912, until the termination of the 10-year contract the annual payment to the United States shall be not less than $1,500. Until that time payments are to be made only for the power actually used. This power is to be furnished from the plant at Minidoka dam from the electrical energy in excess of the quantity required by the United States for pumping and other purposes of the irrigation project. The amount of power to be furnished each town is not to exceed 300 KW. from June 1 to Sept. 1, and to exceed 1,500 KW. from Sept. 1 to June 1, provided that in case one or more of the towns do not desire the use of the full amount of power allotted to it the United States shall have the right to reduce the amount to be furnished to such town to the amount desired and paid for, and transfer the surplus to some other town where it is needed by giving three months' notice.

MONTREAL, QUE.—The Central Canada Power Co. has been incorporated with a capital of $5,000,000 to construct and operate electric power and hydraulic works. The incorporators are: J. C. Hickson, S. B. Hammond, and G. C. Papineau, Montreal.

NELSON, B. C.—The Nelson Electric Tramway Co. has awarded contract to the ALLIS-CHALMERS-BULLOCK CO., Montreal, for a 250-KW. motor generator set.

VANCOUVER, B. C.—The Vancouver Island Power Co. has awarded contract for the first four 4,000-KW. units for its generating station on the Jordan River, on Vancouver Island, to JOHN McDOUGALL CALEDONIAN IRON WORKS, LTD., Montreal, Que., at $53,000. The equipment consists of a 6,000-HP. impulse water-wheel direct connected to a 4,000-KW. Allis-Chalmers-Bullock turbine generator running at 400 r. p. m. The Vancouver Island Power Co. is to supply electricity to the British Columbia Electric Railway Co. for lamps and motors in Victoria and throughout the island. The power company proposes to install next year a generating unit of 20,000 HP. at the Lake Buntzen plant. Estimated cost, about $500,000. The station now has an output of 33,000 HP. R. H. Sperling is Gen. Mgr., Vancouver.

GUERRERO, MEX.—Plans are being prepared by the Alfred B. Adams Co., of Mexico City, Mex., for the construction of a large hydroelectric plant on the Balsas River. The electricity generated at the plant will be transmitted to Guerrero and to several small towns and mining camps in the vicinity. About 60,000 HP. can be developed under concessions already granted by the Government.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

NEW YORK, N. Y.—We are officially advised that contract has been awarded by Kingsley Martin, Bridge Comr., for furnishing and delivering lumber to Harlem River bridges to ARTHUR C. JACOBSON & SONS, 81 Bainbridge St., Brooklyn, at $4,915.

HARRISBURG, PA.—The citizens voted on Feb. 15, to issue $300,000 of bonds for the construction of a bridge at Walnut St. and $25,000 for the city's share toward a bridge at 13th St.

PLYMOUTH, PA.—The County Commissioners on Feb. 16 awarded contract to JAMES J. CLARKE, of Wilkes-Barre, Pa., for drilling ten bore holes at the site of the proposed bridge at Plymouth. Noted on Feb. 24.

PARKERSBURG, W. VA.—The FARRIS BRIDGE CO., Pittsburg, Pa., has been awarded contract at $3,0000 by the County Court for the construction of the Worthington Creek bridge. W. B. Pedigo is Mayor.

LUMBERPORT, W. VA.—The Baltimore & Ohio R. R. Co. is planning to construct a bridge across the Monongahela River, which when completed will connect up the Monongahela Division with what is known as the Short Line at Lumberport. Estimated cost, about $500,000. A. M. Kinsman is Ch. Engr., Baltimore.

NEWTON, N. C.—Catawba County Commissioners will construct a steel bridge across the Catawba River.

SPARTANBURG, S. C.—Spartanburg and Laurens Counties will construct a steel bridge across the Enoree River at Van Patten Shoals. D. M. Miles is Supervisor of Spartanburg County.

ATLANTA, GA.—R. M. Clayton, City Engr., has prepared plans for widening Bellwood Ave. and the construction of a bridge 100 ft. long across the railroad tracks on Bellwood Ave. Estimated cost, $35,000.

COLUMBUS, GA.—We are officially advised that the FOSTER-CREIGHTON-GOULD CO., of Nashville, Tenn., has been awarded by the Central of Georgia Ry. Co. contract for reconstructing their bridge across Chattahoochee River at Columbus. This work involves building five new piers and reconstructing four old ones and two abutments; also the erection of eight 80-ft. deck girder spans and two 50-ft. deck girder spans.

MERIDIAN, MISS.—W. G. Wetmore, City Engr., will prepare plans and specifications and advertise for bids for the construction of two concrete bridges.

*SHREVEPORT, LA.—Bids will be received by C. G. Rives, City Comptroller, until 5 p. m., March 22, for building a steel traffic bridge over Red River, at Shreveport. Estimated cost, $300,000. George R. Wilson is City Engr.

ROME, OHIO.—Contract for constructing the superstructure of bridge over Rock Creek, bids opened on Feb. 14, has been awarded by the County Commissioners to the CAPITOL CONSTRUCTION CO., of Columbus, Ohio.

CLARKSFIELD, OHIO.—Bids will be received by the Board of County Commissioners of Huron County at Norwalk, until 10 a. m., March 14, for furnishing and erecting a steel, riveted truss bridge over the Vermillion River, north of Clarksfield, Huron County. Length of bridge, 100 ft.; consisting of one span. Width of roadway, 16 ft. Plans and specifications may be seen at the office of the Surveyor of Huron County. Bidders may submit alternate plans which shall conform to the general specifications on file. Jay E. Smith is County Audr.

BLOOMINGTON, IND.—Bids will be received by the Board of County Commissioners until March 9 for constructing four bridges, 26, 28, 38 and 80-ft. spans, respectively. A. L. Donaldson is County Engr.

LAPORTE, IND.—Bids are asked by the Commissioners of Laporte and Starke Counties until April 4, for the construction of a bridge over Kankakee River at English Lake. H. C. Miller is Audr.

VINCENNES, IND.—Bids are asked by the Commissioners of Knox County until 10 a. m., March 9, for the construction of a 60-ft. iron bridge on concrete abutments, and concrete floor across Kissinger ditch. John T. Scott is County Audr.

STREATOR, ILL.—The citizens voted on Feb. 16 to replace the old bridge over the Vermillion River at Bridge St. with a new structure. Estimated cost, $40,000. Ralph Modjeski is Engr., 91 Jackson Boulevard.

*DULUTH, MINN.—We are officially advised that bids were received by the Board of Public Works on Feb. 18, for the construction and erection of a mass concrete or reinforced concrete bridge, complete with abutments and approaches, and including pavement and sidewalk, over Tischer's Creek on East Superior St., according to plans and specifications on file in the office of the Board, or according to plans submitted by bidder. Length of span, 84 ft.; length of spandrel wall, 172 ft. The bids follow: (a) Mass concrete, 66 ft. wide, (b) reinforced concrete, 66 ft. wide: P. M. McDonnell, Duluth, (a) $47,507, $46,550 and $47,637, with tar macadam, gravel and asphalt floor respectively; (b) $49,809, $48,852, and $49,939; Pastoret-Lawrence Co., Duluth, (a) $46,763, $45,458, and $47,111; (b) $49,079, $47,774 and $49,427; D. H. Clough, Duluth, (a) $37,842, $37,407 and $38,495; (b) $39,693, $39,258 and 40,345. G. H. LOUNSBERRY, Duluth, (b) $21,295, $20,070 (awarded contract) and $21,820; Illinois Bridge Co., (b) $35,537, $34,202 and $35,624. G. H. Lounsberry and the Illinois Bridge Co., submitted their own plans and specifications. The plans submitted by the former were prepared by C. A. P. Turner, C. E., St. Paul, and provided for a reinforced concrete bridge 66 ft. wide and contract was awarded on this plan.

ST. MARY'S, KAN.—The citizens on Feb. 14 voted to issue $6,000 of bonds for constructing a bridge over the Kansas River. J. F. Hay is City Clk.

COLUMBUS, NEB.—Bids are asked by John Graf, County Clk, until March 15 for constructing all county bridges to be built for a period of one year, beginning April 1, 1910.

ST. LOUIS, MO.—Bids are asked until noon, March 15, by the Board of Public Improvements, for the reconstruction of the superstructure of the northern portion of the 18th St. bridge over Mill Creek Valley and for constructing the new substructure of the northern portion of the 18th St. bridge. Maxime Reber is Pres. Bd.

INDEPENDENCE, MO.—Bids will be received at the office of the County Clerk until March 9 for constructing three steel bridges to be 16, 24 and 30 ft., respectively, two to have concrete and one masonry abutments. Rowland T. Proctor is County Comr. and Highway Engr.

VAN BUREN, ARK.—Waddell & Harrington, Kansas City, Mo., are preparing plans for the construction of a bridge at Jefferson St. Estimated cost, about $500,000.

SHERMAN, TEX.—The city and the Texas Traction Co. will construct a reinforced concrete bridge over Postoak Bayou on West Lamar St.

HOUSTON, TEX.—Gulf, Colorado & Santa Fe Ry., F. Merrit, Ch. Engr., Galveston, Tex., has awarded contract to MOREY & FAULHABER, Chemical Bldg., St. Louis, Mo., for the construction of first section of railroad from Lometa to Eden, Tex., including a 200-ft. truss over river, with 100-ft. and 60-ft. girders and long trestle approach.

BEEVILLE, TEX.—Nueces River Valley R. R. Co., Lee Frisley, Gen. Mgr., 931 Congress Ave., Austin, Tex., will construct four bridges across the Nueces River.

TULSA, OKLA.—The Oklahoma Union Traction Co., A. A. Small, Pres., will construct an 11-span bridge across the Arkansas River, 130 ft. each, tubes 54 ins., 27 ft. high.

OKLAHOMA CITY, OKLA.—The Oklahoma County Commissioners have awarded contract at $23,080 to the KANSAS CITY BRIDGE CO., 1108A East 15th St., Kansas City, Mo., for the construction of 14 steel bridges in connection with canal to be constructed in Deep Fork Drainage District.

SPOKANE, WASH.—Bids will be received until March 8 by George W. Armstrong, Secy. Bd. Pub. Wks., for furnishing all the structural steel to be used in the construction of the Monroe St. bridge.

TACOMA, WASH.—We are officially advised that bids were received on Feb. 14, by H. J. McGregor, Comr. Pub. Wks., for the construction of a reinforced concrete bride across Buckley Gulch between Oakes and Fife Sts., on the line of North 23d St.: C. L. Creelman, Provident Bldg., Tacoma, $49,542; Chamberlain Construction Co., Globe Bldg., Seattle, $51,960; Hurley-Mason Co., Provident Bldg., Tacoma, $50,000; Rich & Harris Construction Co., Bailey Bldg., Seattle, $53,700; C. F. GRAFF, Central Bldg., Seattle, $47,495 (awarded contract); John Huntington, 1712 Commerce St., Tacoma, $51,750; Bertleson & Sons, 1513 Seventh St., Tacoma, $56,200; Wright & Sweeney, 1715 Eighth St., Tacoma, $51,675; Western Bridge Co., Chamber of Commerce Bldg., Tacoma, $44,100.

MONTESANO, WASH.—The County Commissioners have decided to issue bonds for $250,000 for the construction of a bridge across the Chahalis River at this place. Estimated cost, $35,000, the rest to be expended on three new roads, the one to Westport costing $105,000.

*SNOHOMISH, WASH.—Bids are asked until 10 a. m., March 14, by the Board of County Commissioners of Snohomish County, for the construction of a steel swing span over the Snohomish River at Snohomish. The work consists of a 280-ft. steel span, 20-ft. roadway, and two 6-ft. sidewalks, on concrete center pier and concrete abutments. Plans and specifications on file in the office of John F. Birney, County Engr., Everett, Wash.

MADERA, CAL.—The contract for building bridge over the north and south forks of the San Joaquin River has been awarded to the PACIFIC CONSTRUCTION CO., at $14,987. Other bids were: Western Bridge & Construction Co., $16,384; Mervy Elwell Co., $17,840; Burrell Bridge & Construction Co., $18,000; Cotton Bros. & Co., $17,070; Hyde, Harjes & Co., $17,365; Healy, Tibbitts & Co., $16,487.

LOS ANGELES, CAL.—The following bids have been opened by the County Supervisors for constructing a concrete bridge on Huntington Drive: Ornamental Brick Co., $6,785; H. A. Peterson, $8,570; A. Dontanville, $5,967; O. R. Beyrle, $8,830; Arthur S. Bent, $7,406. Mercereau Bridge & Construction Co., $6,100.

VENTURA, CAL.—The County Surveyor has been instructed to prepare plans for a bridge over Santa Paula Creek east of Santa Paula.

SAN JOSE, CAL.—Bids will be received until April 5 for the construction of a reinforced concrete bridge over Coyote Creek on San Jose Road. Estimated cost, $15,000.

*PHOENIX, ARIZ.—Bids are asked until 11 a. m., March 16, by the Board of Supervisors of Maricopa County, William E. Thomas, Clk., for the erection of a concrete steel bridge over Salt River, south of Phoenix. Complete plans and specifications, with a statement of general conditions, may be examined by contractors at the office of A. C. Bartlett, care of Hibbard, Spencer, Bartlett & Co., State St. Bridge, Chicago, Ill.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

NORTH ADAMS, MASS.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at North Adams, Mass., to M. P. WELLS, Witherspoon Bldg., Philadelphia, Pa., at $74,036. Time, Dec. 31, 1910.

NEW YORK, N. Y.—Bids are asked by R. C. Holliday, Ch. of Bureau of Yards and Docks, until 11 a. m., March 19, for rebuilding the chemical laboratory, Building No. 34, at the U. S. Navy Yard. Specifications are on file at the office of Engineering News, New York.

Charles A. Rich, 320 Fifth Ave., Arch. for the newly organized New Netherlands Theater Co., has filed plans for the theater to be built on the site of the old First Church of Christ, Scientist, at 137 to 145 West 48th St., and to be called "The Playhouse." It is to be of brick trimmed with limestone and marble with a frontage of 80 ft. and a depth of 90.10 ft., and will be of the Renaissance design. The auditorium will have three stories, with a balcony and gallery, and above these will be two additional front stories fitted as studios. The building is to cost $170,000. William A. Brady is interested.

Plans have been filed for an 8-story apartment house, with suites for 18 families, to be built from designs by Albert Joseph Bodker, Arch., 27 West 32d St., at 40 to 46 East 62d St., for the 40-46 East 62d Street Co., of which H. Allen Dalley, of Ardmere, Pa., is Pres. It is to be of terra cotta trimmed brick, with a frontage of 66.4 ft. and a depth of 84.8 ft., and will cost $200,000.

NEW YORK, N. Y.—C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, has filed plans for a 5-story public school to be built by the city at the northeast corner of Baxter and Hester Sts., replacing School No. 130, of which Mary A. Underhill is principal. The proposed structure will have a frontage of 200 ft. on Baxter St. and will be Gothic in style, lighted by mullion bays and crowned with parapets adorned with clusters of pinnacles. It will have a girls' playground adjoining the assembly auditorium on the main floor and a second playground on the roof of this auditorium. The building is to cost $300,000. It will be of gray brick, with limestone trimmings.

Plans have been filed for enlarging an 8-story warehouse occupying the block facing on Eleventh Ave., from 36th to 37th Sts., by adding an 8-story annex at 37th St., the improvement to be made at a cost of $50,000 for David L. Williams, as owner, and from designs by Radcliffe & Kelley, Archs., 3 West 29th St.

Thomas W. Lamb, Arch., 224 Fifth Ave., has plans for a 3-story theater to be built for Henry Morgenthau, realty operator, on the south side of 145th St., just east of Eighth Ave., on part of the plot formerly covered by the car storage trestle work of the Manhattan Railway Co. The theater will be of ornamental brick trimmed with limestone, having a frontage of 55 ft. and a depth of 89.11 ft., and a facade finished with a tall central bay with mullion windows, flanked by two smaller bays and crowned by an arched parapet carrying a flagstaff. The building will have a balcony and a gallery and is to cost $60,000.

Plans have been filed for a 12-story apartment house, to be erected on a plot with a curved frontage at the southeast corner of Riverside Drive and 116th St., adjoining the house of the Alpha Club, the curve of the lot corresponding to the sweep of the Drive at this point. The building will be of brick and limestone, with a facade on the Drive, and will contain suites for 16 families. It is to be built from designs by Schwartz & Gross., Archs., 347 Fifth Ave., for Paterno Bros., Inc., as owners. It will cost $325,000.

NEW YORK, N. Y.—We are officially advised that the Heywood-Wakefield Bldg. Co. will erect a 12-story and basement furniture warehouse. 100 × 197.6 ft., and an addition, 45 × 98.9 ft., to cost $500,000 complete. The contracts have been let as follows: General, HEDDEN CONSTRUCTION CO., 1 Madison Ave.; steel, POST & McCORD, 44 East 23d St.; ornamental iron, WHALE CREEK IRON WORKS; electric wiring, CORTLANDT ENGINEERING CO., 39 Cortlandt St.; plumbing, JAMES McCULLAGH, 218 West 56th St.; heating, G. A. SUTER, 112 Wooster St.; sprinkler, ROCKWOOD SPRINKLER CO., 2 Rector St.; elevators, OTIS ELEVATOR CO., 17 Battery Pl.; vacuum cleaners, CONNERSVILLE BLOWER CO., 50 Church St. The building will be erected at 514 to 520 West 34th St., running through the block to 33d St., between Tenth and Eleventh Aves., one block north and west of the rear portion of the Pennsylvania R. R. terminal holdings. Lee & Hewitt, 1123 Broadway, New York, are Archs. and Engrs.

POUGHKEEPSIE, N. Y.—We are officially advised that the general contract has been awarded to the O'DONNELL CONSTRUCTION CO., 19 North St., Poughkeepsie, for the erection and completion of the Church of Our Lady of Mount Carmel, Rev. N. Pavone, Rector, 95 Mill St., Poughkeepsie. Plans and specifications were prepared by N. Serracino, Arch., 1170 Broadway, N. Y., who will superintend the work.

FORT TOTTEN (Whitestone post-office), N. Y.—Bids are asked by the Constructing Q. M., Fort Totten, until 2 p. m., March 23, for construction, plumbing, heating and wiring with fixtures of two double N. C. O.'s quarters and construction and plumbing of an extension to ordnance shop at Fort Totten, N. Y.

NEW ROCHELLE, N. Y.—A school building, to cost $80,000, is to be erected at the corner of Mayflower and Summit Aves. and White Oak St., by the Common Council. The building will be of brick and will contain 16 rooms.

BUFFALO, N. Y.—Esenwein & Johnson, Archs., 777 Ellicott Sq. Bldg., is preparing plans for alterations to the Iroquois Hotel, to cost $150,000, including the installation of 100 additional bathrooms and equipment. John F. McDonald is owner, 6 Jewett Block, Niagara Falls, N. Y.

KINGS PARK, N. Y.—The State Lunacy Commission has awarded to BLISS & GRIFFITHS, 225 Fifth Ave., New York, the contract for constructing four cottages for chronic insane patients at the Kings Park State Hospital, Kings Park, N. Y. The contract price is $282,000. T. E. McGarr is Secy. of the Comn., Albany. A complete list of bids was published on Feb. 3.

TROY, N. Y.—We are officially advised that seven bids for the construction of the proposed Central school building, to be erected on land acquired on Seventh St., between Congress and State Sts., were received by the Board of Contract and Supply at its meeting on March 1. Proposals for the same work were received by the Board and rejected about a month ago, upon the recommendation of F. L. Grimes, City Engr. The lowest bidder was the Charles P. Boland Co., Times Bldg., Troy. The bids received were as fol

lows: Charles P. Boland, Troy—Natural stone, $296,400; artificial stone, $292,400. James Dollard, Troy—Natural stone, $301,-545; artificial stone, $296,680. Philip Casey, Troy—Natural stone, $305,990; artificial stone, $304,000. Raymond M. Booth, Albany—Natural stone, $297,000; artificial stone, $293,000. Connors Brothers Co., Lowell, Mass.—Natural stone, $304,000; artificial stone, $301,000. W. H. Keese & Co., Boston, Mass.—Natural stone, $329,495; artificial stone, $325,993. McGahey & O'Connor, Boston—Natural stone, $309,202; artificial stone, $307,202. The bids were referred to the City Engineer and Commissioner of Public Works.

JERSEY CITY, N. J.—The following bids were received on Feb. 16, by the Court House Commission for decorating and furnishing the court-house, now in course of construction: John Gill & Sons, 12 West 31st St., New York, $114,000; W. G. Andrews Decorating Co., Clinton, Iowa, $116,-600; D. S. Hess, 453 Fifth Ave., New York, $173,250; Derby Desk Co., 165 Broadway, New York, $198,700.

PHILADELPHIA, PA.—Heins & La Farge, 30 East 21st St., New York, Archs., have been commissioned to prepare plans for a church to replace the present St. Patrick's Roman Catholic Church, at the southwest corner of 20th and Locust Sts. The new structure, which will be of highly ornamental design, will occupy an area of 80 x 180 ft., and will cost in excess of $250,000.

Ground is to be broken soon for the erection of an 8-story flat house at the northwest corner of Chestnut and 22d Sts. for E. E. Comber. It will be of steel construction with a brick and stone exterior, and will measure 69.6 x 92 ft. It will contain 30 suites. The permit for the work, which has been granted W. E. DOTTS & CO., 148 North Second St., gives the estimated cost as $300,000. Milligan & Webber are Archs., 520 Walnut St., Philadelphia.

Work will be started at once upon the erection of a home on Paper Mill Road, Chestnut Hill, for Wilson Potter. The contract has been awarded to W. J. PATTERSON, by Brockie & Hastings, Archs., 328 Chestnut St. According to the plans, the house will be 2½ stories high, of stone, and will measure 125 x 39 ft. Including a garage, 29 x 44 ft., the cost will be $60,000.

SHREVEPORT, LA.—Peter Youree, Pres. of the Commercial National Bank, Shreveport, La., will erect a hotel and bank building on the corner of Texas and Market Sts., to cost between $200,000 and $300,000. The building will be built at the present site of the Phoenix Hotel. The lower floor will be arranged for the bank. It is stated that the plans are in the hands of the architect, and that bids will be advertised for without delay.

BUTLER, PA.—The Butler Savings & Trust Co. will make improvements to its present building. About 40 ft. will be added to the depth of the main banking room, new fixtures, furniture, etc., will be put in and a vault will be installed. In all about $60,000 will be expended.

BALTIMORE, MD.—Plans for Public School No. 51, to be built at the corner of Carroll and Windermere Aves., have been completed by Baldwin & Pennington, Professional Bldg., Baltimore. It will be a 3-story structure and contain 24 rooms. The school will be constructed of gray bricks with Indiana limestone trimmings, and will have a base of granite. The specifications call for bids for an entire fireproof building. The structure will be 165 x 80 ft., on a lot 300 x 331 ft. The school will cost $150,000. A steam heating plant will be installed.

WASHINGTON, D. C.—Bids were received as follows on Feb. 23, by the Commissioners of the District of Columbia for the construction of an 8-room school house at Tenth and E Sts., S. W., Washington: Boyle-Robertson Construction Co., $61,881; Thomas H. Melton, 621 F St., N. W., $59,975; R. T. Humphrey, $64,500; J. M. Dunn, $61,000; George E. Wyne, Munsey Bldg., $61,000; Burgess & Parsons, 612 13th St., N. W., $61,-800; W. H. McCray, Bond Bldg., $58,391; W. E. Mooney, Lenman Bldg., $61,861. All bidders of Washington.

The NOEL CONSTRUCTION CO., German and Calvert Sts., Baltimore, Md., which was awarded the contracts for the erection of the naval hospitals at Chelsea, Mass., Newport, R. I., and Portsmouth, N. H., by the Navy Department, has sublet the ornamental iron work to the ORNAMENTAL IRON & WIRE WORKS, Portsmouth, Va. The amount is $29,000. The BECKEBERG SASH & DOOR CO., Milwaukee, Wis., has the contract for the cabinet work, amounting to $36,000. The electric work has been sublet to the WATSON-FLAGG ENGINEERING CO., New York, for $25,000.

DURHAM, N. C.—Ground has been broken by N. UNDERWOOD, beginning the first of a group of buildings for Trinity College. The first is to cost about $70,000, and it is designed by Hook & Sawyer of Charlotte, N. C., for 18 recitation rooms. Mr. Underwood is under contract to complete the building by Oct. 1. It is to have a high basement, two stories, and will be 90 x 172 ft. It is expected to connect this to twin building, to be used for the faculty, society halls and other uses. A monumental tower will join them.

*HATTIESBURG, MISS.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m. April 4, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Hattiesburg.

NASHVILLE, TENN.—Plans and specifications for three normal schools will be received by the Board of Education until March 18. The Board at its last meeting voted to adopt plans for the buildings, and instructed the superintendent to furnish to all architects, who desired to compete, all data necessary to the preparation of the plans. The data furnished is very minute in detail as to the buildings to be erected. The buildings will cost a total of $690,000. At Johnson City and Murfreesboro, one main building to cost $130,000, and a woman's dormitory to cost $50,000, will be erected at each. At Memphis a main building to cost $200,000, a woman's dormitory to cost $100,000, a model school to cost $30,000, and a central heating plant will be erected. The sites of the schools have all been selected, and the way is open to the early erection of the buildings. Including the appropriations of the communities in which the three schools will be located, between $800,000 and $900,000 is available to be spent upon construction and maintenance of the institutions. In selecting the plans for the buildings, the Board of Education reserves the right to employ an outside architect to help select the most suitable. No fee will be given any of the competing architects except to the winners. Estimated cost of construction must be given with each plan, and the contract price must not exceed the estimate more than 10%. Estimates of both fireproof and ordinary construction are desired. Stone or concrete will be used for the foundations and brick for buildings. For each of the Murfreesboro and Johnson City normals, the main building is to contain a chapel, with seating capacity of from 800 to 1,000, and a study hall to seat 500 to 600. Rooms for domestic science, the manual arts, laboratories, with adjacent lecture rooms; five recitation rooms to be occupied by pupils of the observation and practice school; a library; 12 to 16 class rooms, and two or three rooms to be used for offices until an administration building can be obtained, are to be provided for. A science building will be erected at each place as soon as funds are available, and it is desired that the manual arts, domestic science and the laboratories be placed in the basement for the present. In the Memphis school the main building will be nearly the same as the other two, except that it will not contain the rooms for the practice school. The model school will contain at least eight rooms. From 600 to 800 student teachers are expected at each school. All the buildings will be heated by steam, probably. The dormitories are to be built so as to accommodate as many as possible. The best material is to be used in all construction work, and the dormitories are to be fireproof.

COLUMBUS, OHIO.—The commissioners of Franklin County have authority to proceed with the construction of a $90,000 tuberculosis sanitarium.

FORT BENJAMIN HARRISON (Lawrence post-office), IND.—Bids are asked by Capt. James V. Heidt, Const. Q. M., until 11 a. m., March 11, for construction, plumbing, heating and wiring of one 4-set officers quarters here.

PERU, IND.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 30, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Peru.

INDIANAPOLIS, IND.—Plans have been completed on which bids will soon be asked for the construction of a contagious hospital. Estimated cost, $100,000. C. A. Shrader, Chn. Bd. of Public Works.

The Anderson-Zeigler Co. is preparing to build a 14-story steel and concrete office building on the site of the Grand Opera House on North Pennsylvania St. The contract will be let in time for work to begin in the spring. M. C. Anderson is Pres.

The Union R. R. Co. has ordered plans for remodeling and enlarging Union Station. Bids will be in order soon. Estimated cost, $75,000.

INDIANAPOLIS, IND.—J. H. Smith, Washing and Alabama Sts., will ask for bids for the erection of a 10-story business building on north Pennsylvania St. as soon as plans are made.

The F. M. Bachman Co. is asking for bids for the construction of a 3-story apartment house on Central Ave. and 14th St.

SHELBYVILLE, IND.—Mrs. E. F. Hamilton has ordered plans for the erection of a business block on South Harrison St.

TERRE HAUTE, IND.—The local Post of the G. A. R., Captain A. C. Ford, Commander, will ask for bids soon for the erection of a club-house and relic museum on the old State Bank site.

FT. WAYNE, IND.—The Associated Charities is preparing to build a public workhouse. Bids will be in order soon. S. M. Foster, C. F. Biekel and Miss Mary Willard are Executive Com.

ANDERSON, IND.—Bids are asked by the Anderson Loan Association until March 10, for the construction of a office building at Jackson and Tenth Sts. Estimated cost, $75,000. Rubush & Hunter, American Central Life Bldg., Indianapolis, are Archs.

HAMMOND, IND.—The school board has purchased a 14-acre site on which to erect a $200,000 manual training school building. Bids will be in order as soon as plans are approved.

DETROIT, MICH.—Proposals for building the Clippert and Nicholls Schools have been received by the Board of Education, but were above the appropriations of $68,000 each. Plans will be revised and the work will be readvertised soon. William J. Lee is Secy., 50 Broadway Ave., Detroit; Malcomson & Higginbothom, Archs., 404 Moffat Bldg., Detroit.

Bids are asked by Badgley & Nicklas, Archs., 6110 Euclid Ave., Cleveland, Ohio, until March 10 for a church for the Highland Park Presbyterian Congregation, James Gordon Chn. of Bldg. Com., 63 Woodland Ave., Detroit. The church is to be of stone and structural iron and steel construction.

DETROIT, MICH.—R. E. Raseman, Arch., 1302 Penobscot Bldg., Detroit, has let contracts for a 2-story and basement Ladder House, 48 x 71 ft., for the Board of Fire Commissioners, George W. Stockwell, Secy., Larned and Wayne Sts., Detroit, to MAX BARTHOLOMAEI, SON & CO., 466 Warren Ave., E.

Plans and specifications have been prepared by R. E. Raseman, Arch., Penobscot Bldg., for a 2-story Hospital Bldg., 50 x 350, for Supt. of Poor of Wayne County. S. M. Keenan, Secy., Eloise, Mich.

Shields & Allaster, Archs., 302 Bamlet Bldg., have let the general contract for the proposed club house for the Polish Turner Club, S. J. Sarnowski. Pres., 39th St., to T. GARSZTECKI, 281 34th St., Detroit.

John Scott & Co., Archs., Ford Bldg., Detroit, have been selected to prepare plans and specifications for addition and alterations to cost $70,000 to the building owned by the Detroit Club, Fort St. Cass Ave., Detroit. William H. Burtenshaw is Secy.

CHICAGO, ILL.—The specifications for the projected Harris Trust Building, the new home of the Harris Trust & Savings Bank, to be erected on the south side of Monroe St., between Clark and LaSalle Sts., have been given out to contractors for estimates. As soon as these have been returned and passed upon by the bank's building committee, work of demolishing the old structure which now occupies the site will be begun, and immediately thereafter the new structure will be started. According to the Chicago "Post," the building, which together with the land on which it will stand, will cost approximately $3,000,000, will have a frontage of 90 ft. and will extend south 190 ft. to the alley between Monroe and Adams Sts. It will be 20 stories in height, rising 260 ft. above the sidewalk, and will rest on caisson foundations which will go down 110 ft. to bed rock. There will be a basement which will be used as safety deposit vaults and below this will be two sub-basements, the lower of which will contain the mechanical department of the building. Construction will be fireproof throughout, the superstructure being of steel. The exterior finish of the first five floors will be of pink granite, highly polished and decorated with statuary bronze, with granite columns five feet eight inches thick at the base and rising to a height of more than 40 ft. Above the granite work will rise the main shaft of red Roman brick, capped by ornamental terra cotta harmonizing in color and finish with the granite. The quarters of the Harris Trust & Savings Bank will be the ground floor space of the building and a balcony immediately overlooking this main floor. The public space of the banking offices will be finished in Italian marble. Marble tile floors will be used in all the corridors with high marble wainscoting, setting off the mahogany trim. Light courts faced with white enamel brick will be on the east and west sides of the building.

ROCK ISLAND, ILL.—Bids were received as follows on Feb. 24, by James Knox, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of an extension to the post-office at Rock Island, Ill.: Harrison Bros., Williamsport, Pa., $74,000, Feb. 1, 1911; Paul Riesen's Sons, Milwaukee, Wis., $79,000, Oct. 31, 1911; John Volk & Co., Rock Island, Ill., $78,031, May 1, 1911.

LA CROSSE, WIS.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at La Crosse, Wis., to the GENERAL CONSTRUCTION CO., Hathaway Bldg., Milwaukee, Wis., at $38,670. Time, March 1, 1911.

ST. PAUL, MINN.—Albert F. Woods, Dean of the State Agricultural College, will ask the legislature for an appropriation of $500,000 for the construction of a pressed brick and cut stone armory, auditorium and drill hall, 200 x 500 ft., and 3 stories high.

The Church of the Redeemer, Rev. O. C. Kreinheider, Pastor, 358 Woodward Ave., is receiving bids for the construction of its proposed church on Carroll Ave. and Dale St. It will be of concrete and brick construction, seating about 450. A. F. Gauger, Scandanavian Bank Bldg., is Arch.

The Arcade Investment Co., Cathcart & Maxfield, Agents, city, has awarded the contract for the construction of the 5-story addition to the Lowry Arcade. Plans were prepared by Kees & Colburn, Archs., Donaldson Bldg. The contract was awarded to CHARLES SKOOGLUN, 1105 Jessie St., St. Paul. Cost, $45,000.

George Benz & Sons, 407 Jackson St., have awarded the contract for the construction of the superstructure of the proposed 5-story fireproof hotel at Wabasha and Exchange Sts. to CAMERON & CO., 619 Ryan Bldg., St. Paul. It will be 40 x 150 ft. and will have two electric passenger elevators, marble and tile interior. It will cost $80,000. Buechner & Orth, Manhattan Bldg., St. Paul, are Archs.

Griggs, Cooper & Co. contemplate the erection of $250,000 warehouse on property which they have acquired on the north side of University Ave. between Fairview Ave. and Aldine St.

BRAINERD, MINN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 31, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Brainerd.

STILLWATER, MINN.—The State Board of Control, Charles Halvorson, Chn., received the following bids for the general construction of the proposed state prison at Stillwater on plans drawn by C. H. Johnston, Arch., Manhattan Bldg., St. Paul: J. & W. A. Elliott, Lumber Exchange, Minneapolis, $2,058,000; O. H. Olson, Stillwater, $2,080,-000; P. J. Carlin Construction Co., 16 East 23d St., New York, $2,115,000; Noel Construction Co., German and Calvert Sts., Baltimore, $2,143,000; Connors Bros. Co., New York, $2,198,000; George J. Grant Construction Co., New York Life Bldg., St. Paul, $2,243,520. On a substitution of alternates the bid of O. H. Olson's was $1,417,000 and he will probably be awarded the contract. The low bidder on the mechanical and electrical equipment was the Hanley-Casey Co., 37 Ohio St., Chicago, at $584,000.

FORT D. A. RUSSELL, W[illegible]O.—Bids are asked until 9.30 a. m., Mar[illegible] 21, by Capt. V. K. Hart, Acting Q. M., K[illegible] Hall, Cheyenne, Wyo., for the construct[illegible] etc., of the following public buildings [illegible] Fort D. A. Russell, Wyo.: (1) For cons[illegible]on, plumbing, heating, electric wiring [illegible] electric fixtures for two quarters for [illegible]d officers, Plans No. 235-A; (2) for co[illegible]uction only of two band stands, Plans No. [illegible]4-B.

ST. LOUIS, MO.—Plans h[illegible] been completed by Ernest Preisler, A[illegible] 918 Pine St., for a $60,000 store, office [illegible] apartment building, to be erected on the [illegible]thwest corner of California and Gravois [illegible]s., for the Carrie Investment Co., one o[illegible] the holding companies of the George J. W[illegible]strath Real Estate Co., 815 Chestnut St. [illegible] lot, which fronts 200 ft. on California A[illegible] 160 ft. on Gravois Ave., 129 on an alley [illegible] the north and 305 ft. on an alley to [illegible] west, was bought recently by the Carr[illegible] Investment Co. of Ben Friedman and othe[illegible] Plans for using the lot were announced [illegible]terday by George Wanstrath, Pres. of [illegible] company. The building is to be two sto[illegible] high and to have either seven large or [illegible]teen small stores on the ground floor. Th[illegible] upper floor is to be rented for offices and a[illegible]tments.

KANSAS CITY, MO.—A per[illegible] has been issued to the Kansas City Sto[illegible] Yards Co. for the superstructure of the [illegible]posed Live Stock Exchange Bldg. at 16th [illegible]d Genesee St. The estimated cost is $[illegible],000. The foundation for the building is [illegible]lready in. The structure will be nine stori[illegible] high and built of brick and stone. It will have a frontage of 250 ft. and will be 127 ft. deep.

INDEPENDENCE, MO.—Bids are asked until 3 p. m., April 5, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Independence.

TACOMA, WASH.—Reed & Stem, Archs., Endicott Bldg., St. Paul, Minn., and 7 East 42d St., New York, are preparing plans for the construction of a pressed brick and cut stone fireproof addition to the hospital for the Northern Pacific Co. Benefit Association. It will cost $50,000.

BREMERTON, WASH.—The Bureau of Yards and Docks, Navy Dept., Washington, D. C., will receive bids for a general storehouse building at the Navy Yard, Puget Sound, Wash., contract for which has been authorized at a limit of cost of $260,000. The building will be approximately 250 by 171 ft. and will be 49 ft. from yard grade to the highest point of parapet. It will be constructed of reinforced concrete with steel frame for roof; roof to be covered with tar and gravel, or equivalent. The contract will allow twelve months for the completion of the work. The plumbing, heating and electric wiring and lighting are included, also telephone wiring and four electric freight elevators having a lifting capacity of 8,000 lbs., superimposed load at a speed of 50 ft. per minute. Plans and specifications will probably be ready for issue about March 10.

Also, the Bureau of Yards and Docks, Navy Dept., Washington, is preparing plans and specifications for the construction of an oil storage house at the Puget Sound Navy Yard. The building is to be of reinforced concrete, 119 x 50 ft. wide and approximately 28 ft. 6 ins. above grade. The work includes the heating, lighting and power installations, and one electric freight elevator having a capacity of 5,000 lbs., superimposed load at a speed of 50 ft. per minute. A sprinkler system for fire protection throughout the building is also included. The appropriation for the building is $30,000. Plans and specifications should be ready for distribution in about three weeks.

SPOKANE, WASH.—F. Merchant, proprietor of the Pacific Hotel, on Post St. and First Ave., will expend $200,000 in erecting a 4-story addition and in raising the present 3-story structure to four stories, plans for which have been prepared by Preusse & Zittbe, Archs., Jamieson Bldg.

D. C. Collins has purchased a site on the southwest corner of Wall St. and Second Ave. and will start construction work on a 4-story brick hotel building to cost $60,000. Plans are being prepared by C. Harvey Smith, Rookery Bldg.

SEATTLE, WASH.—Buildings, costing $500,000, are to be erected by the Yukon Investment Co., of which R. Auzias de Turenne is Pres. One is to be built on the northwest double corner of Third Ave. and Jamos St., to cost $300,000, and to be used for office purposes. Plans have been completed by Graham & Myers, Archs., Lowman Bldg., and the general construction has been let to STONE & WEBSTER, work to begin March 1. The company has decided to commence at once the construction of a 2-story store and hotel building at the northwest corner of Charles St. and Eighth Ave., South, plans for which have been prepared by J. F. Everett, and contract has been let to HELTHBORG & SCHWAN.

Plans have been prepared by Carl Siebrand, Arcade Bldg., for a 3-story and basement store building to be erected on First Ave., South, near Holgate St., for O. B. Williams, at a cost of between $40,000 and $50,000.

WENATCHEE, WASH.—Bids are being called for the erection of a $60,000 hotel at Wenatchee and Orondo Ave., in the busiest section, by Walter M. Olive, J. A. Scamon, A. N. Courtway and J. W. Quigg.

PORTLAND, ORE.—Plans are being prepared by Lazarus, Whitehouse & Fouilhoux, Archs., Lumberman's Bldg., for a 5-story brick apartment house to be constructed by J. L. Wickersham immediately. The site of the building is at the northeast corner of 18th and Flanders Sts., a lot 57 x 100 ft., with the main frontage on Flanders St., where the entrance of the building will be. The structure will be built as an apartment house for families, the various apartments containing five or six rooms each, with the exception of the first floor, where there will

be three and 2-room bachelor apartments. The cost of the building is estimated at $55,000.

Announcement has been made that Charles Sweeny, of Spokane, will erect in this city a $1,000,000 hotel to be 14 stories in height and of steel and concrete construction. A company composed of local capitalists has leased the hotel.

FORT MASON (San Francisco post-office), CAL.—Bids are asked until noon, April 1, by Maj. George McK. Williamson, Q. M., for constructing an administration building and two storehouses, including grading, installing plumbing, heating, electric wiring and conduits, elevators and fire extinguishing systems in same at Army Supply Depot, Fort Mason, San Francisco.

OAKLAND, CAL.—PERCY J. WALKER has been awarded the contract to build the proposed Bankers' Hotel. The hotel will cover the block bounded by 13th, 14th, Harrison and Alice Sts. Bliss & Fanille are Archs., 15 Second St., San Francisco.

LOS ANGELES, CAL.—S. Tilten Norton, Byrne Bldg., has been commissioned to prepare plans for a 3-story Class A steel building, 40 x 100 ft., to be erected on South Olive St., and to be used as an annex to the Clara Barton Hospital.

The California Clay Mfg. Co. will erect an 8-story loft building at 233 South Los Angeles St. It will be 56 x 200 ft. and fireproof.

The lot at the southwest corner of South Hill and Third Sts., at entrance to Third St. tunnel, is being cleared for erection of a 10-story building, at cost of $500,000, by William Ferguson, owner of premises.

LOS ANGELES, CAL.—Work is to be started at once on the new municipal building to be erected for the City Water Department at the southwest corner of Fifth and Olive Sts. The building will cost between $150,000 and $200,000. The present plans call for a 4-story structure, but in the future six more stories may be added, bringing the total cost to $500,000. The plans were made by Parkinson & Bergstrom, Security Bldg., according to the Los Angeles "Examiner." The structure is on the severe classic lines of the Ionic order. It will have a frontage of 60 ft. on Olive St., by a depth of 144 ft. on Fifth St. It will be set back from the street on a line with the Olive St. facade of the Pacific Mutual structure, and to admit of a basement entrance on the Fifth St. side. The south side of the 90-ft. lot and the rear will be parked and made into an attractive stretch of garden and lawn. The building will be a steel frame, class A structure. There will be a basement, and the base of the structure will be of granite. The entire facing of the superstructure will be of glazed terra cotta. The supports will be fluted columns, two in the front and eight on the Fifth St. side. The windows and iron screen work will fill the openings between the columns, giving the exterior the appearance of being constructed of terra cotta and iron. The entrance will be constructed of marble. The first floor of the building will be devoted to the public offices, the entrance lobby opening upon a large public lobby in the center of the building. This will be fitted in the style of a banking room, the clerks' and tellers' windows being around the central space. On this floor also will be located large vaults and additional space for clerks and employes. In the basement will be located the heating plant, storage rooms and book vaults, locker rooms, lavatories, etc. The second floor will be the president's and directors' rooms. On the third and fourth floors will be more offices.

PASADENA, CAL.—Dr. G. M. Martin, Security Bldg., Los Angeles, Cal., has purchased the Giddings Ranch (60 acres) at the mouth of Millards Canyon, near Pasadena, for $50,000. He will erect a sanitarium to cost $100,000. Parkinson & Bergstrom, Security Bldg., Los Angeles, are Archs.

SAN FRANCISCO, CAL.—The contract has just been let for the construction of an apartment building to be erected in the north line of Sutter St. between Hyde and Leavenworth Sts. The building is owned by Ignatz Steinhart of the Anglo and London-Paris National Bank. He has leased the building to Mrs. Ada Pillsbury Boyd. There are 47 apartments, made up of single and two, three and four rooms; each will have its private bathroom and kitchen finished in white enamel. The building is to be of brick and steel construction, six stories and basement. The front is to be of cream colored pressed brick and terra cotta trimmings. The lot has a frontage of 78 ft. and a depth of 137.6 ft. McDougall Bros., Russ Bldg., San Francisco, are Archs., and the LINDGREN CO. is the contractor.

MONTREAL, QUE. — Additional rooms, numbering about 100, are to be added to the Place Viger Hotel, at a cost of about $150,000, while the building of a St. Louis St. wing to the Chateau Frontenac at Quebec is also under contemplation. At Lake Louise Chalet 50 bedrooms are to be added, and the dining rooms remodelled at a cost of $65,000, and at Glacier, B. C., a fireproof wing is to be added, at a cost of about $97,000. 25 rooms are to be added to the Sicamous Hotel, at a cost of about $20,000. Hayber Reed is Mgr., Hotel System, C. P. R., Montreal, Que.

TORONTO, ONT.—Bids are asked by the Board of Control, until noon, March 8, for constructing the proposed Isolating Hospital at Toronto. Estimated cost, $102,000. G. R. Geary, Mayor, is Chn. Bd.

TORONTO, ONT.—William Morris, of New York, will erect a theater, to be called the Morris Victoria Theater on Yonge St., above Queen St., to be completed by Sept. 1, 1911. It will be like Morris' Plaza Theater, New York, and will cost $225,000.

OTTAWA, ONT.—Bids are asked by Napoleon Tessier, Secy. Dept. of Public Works, Ottawa, until 5 p. m., March 7, for restoration of and constructing an additional story to the Military Stores Bldg., Ottawa.

WINNIPEG, MAN.—The Canada Cycle & Motor Co. will erect a 5-story warehouse on Princess St. T. A. Russell is Mgr., Toronto, Ont.

WINNIPEG, MAN.—The J. McDiarmid Co. will erect an office block on Donal St., 7 stories high, and 110 x 130 ft. The building will be reinforced concrete and will cost $80,000.

C. P. Walker, Mgr., has purchased the Winnipeg Theater, and announces that a new theater will be built this year.

Excavation work started on Feb. 21 on the construction of the proposed building for the Bank of Montreal. The total expenditure, including interior furnishings, will amount to $1,500,000.

MEXICO.—Brubaker & Stern, Archs., 23 North Pennsylvania Ave., Indianapolis, Ind., have secured commissions for plans and specifications for two reinforced steel and concrete buildings in Mexico, one at Chihauhau, to cost $150,000 gold, and one at Monterey, to cost $100,000 gold.

WATER-SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

PITTSFIELD, MASS.—The Board of Public Works in its annual report recommends the construction of a storage reservoir on Mill Brook, and the installation of water meters for general use. Estimated cost of reservoir, $10,000.

WATERBURY, CONN.—Bids are asked until March 14 for $200,000 water bonds.

SCHENECTADY, N. Y.—Contract for c.-i. water pipes and special casting has been awarded to CHARLES MILLAR & SONS CO., Utica, at the following prices: For 4-in. pipe, $26.90 a ton and for 6- and 8-in. pipe, $24.90 a ton; special casting, 2½ cts., a lb. Contract calls for approximately 169 tons of c.-i. pipe and 14,000 lbs. of special castings.

BUFFALO, N. Y.—The following were the lowest bids opened by F. G. Ward, Comr. Pub. Wks., on Feb. 18, for the equipment of the new water-works pumping station: For the five pumps, Holly Mfg. Co., Roberts Ave. and Clinton St., Buffalo, $674,769; for boilers, the Heine Safety Boiler Co., Pennsylvania Bldg., Philadelphia, Pa., $155,000; for coal and ash conveying machinery, the Bartlett-Snow Co., $32,750; for electric crane, the White Foundry Co., $9,900; for feed pump, the Dean Steam Pump Co., 898 Ellicott Sq., Buffalo, $24,330.

NIAGARA FALLS, N. Y.—The Water Commission, on Feb. 21, awarded the contract for the filtration plant for the new water-works system to the NORWOOD ENGINEERING CO., of Florence, Mass., at $249,000.

*ATLANTIC CITY, N. J.—Bids will be received by the Board of Water Commissioners, until 2.30 p. m., March 15, for furnishing and installing two 300-HP. horizontal water-tube boilers at the Absecon pumping station, in accordance with specifications on file in the office of the Water Department. L. Van Gilder is Engr. and Supt.

*LEBANON, PA.—Bids will be received by the Board of Water & Lighting Commissioners, J. D. Kerr, Secy., until 8 p. m., March 25 for about 29,100 lin. ft. of 20-in. gravity main and 3,700 lin. ft. of 16-in., 13,900 lin. ft. of 32-in., and 3,900 lin. ft. of 10-in. main. T. R. Crowell is City Engr.

WILMINGTON, DEL.—Bids were opened on Feb. 21, as follows by the Board of Water Commissioners for remodeling the old pumping station at 16th and French Sts., for use as an office building: William D. Haddock & Co., $19,967; A. S. Reed & Bro. Co., $20,578; John E. Healey, $21,980.

BALTIMORE, MD.—The Baltimore & Ohio R. R. Co. is considering the construction of a 90,000,000 gallon reservoir and a pipe system. A. M. Kinsman is Ch. Engr., Baltimore.

APPALACHIA, VA.—The city has voted $26,000 of bonds for the construction of water-works.

ATLANTA, GA.—The city has voted $900,000 of bonds for extension and improvement of water-works, which will include a new reservoir, estimated cost $55,000; increase of filter plant, $50,000; two coagulating basins, $50,000; land for basins, $8,000; additional clear water basins, $12,000; piping, $725,000. R. M. Clayton is City Engr.

COLLEGE PARK, GA.—The citizens on Feb. 21 decided to install a waterworks system here.

TALLADEGA, ALA. — The Mayor and Council have approved a proposition for a bond issue of $50,000 for the construction of water-works.

ENSLEY, ALA.—Corey Land Co., Robert Jemison, Jr., Pres., Birmingham, Ala., will construct 8½ miles of water mains.

HARTSELLS, ALA.—The city is planning the construction of water-works.

SYLACAUGA, ALA.—The city has voted a bond issue for the extension of water-works.

VICKSBURG, MISS.—Bids are asked by the Mayor and Aldermen until 8 p. m., March 7, for laying water mains in Cherry St., from Glass Bayou to Finney St., thirty-six blocks, Harris St., from Cherry St. to Drummond St., one block; Drummond St., from Harris St. to Bowmar Ave., four blocks; and in Walnut St., from First St. to South Madison St., nine blocks. J. J. Hayes is Mayor.

KNOXVILLE, TENN.—The City Council has approved plans of the Water-Works Commission to build an addition to the sedimentation basin at a cost of about $4,000, addition to be 75 ft. long and 64 ft. wide, depth 11½ ft., concrete, present capacity, 300,000 gallons, to be increased to about 600,000 gallons. E. N. Chisholm, Mgr., prepared plans and will superintend construction.

MORRISTOWN, TENN.—The City Council has authorized an appropriation of $10,000 for the extension of water and light plants.

MILLERSBURG, KY.—The city has engaged F. O. Siebert, 215 East Main St., Lexington, Ky., to prepare plans for the construction of water-works.

DAYTON, OHIO.—The Board of Public Service has awarded contract for 575 tons of 3 to 12-in. c.-i. pipe and 50 tons c.-i. specials to the U. S. CAST IRON PIPE & FOUNDRY CO., 71 Broadway, New York.

HUDSON, OHIO.—The citizens voted on Feb. 14 in favor of accepting the offer of James W. Ellsworth, of New York, to construct and present to the city, water-works, a sewer system and electric light plant.

TOLEDO, OHIO.—Bids will be received until March 4 by the Director of Public Service for furnishing f. o. b. cars, Toledo, as required, 1,000 tons of 4, 6, 8, 10 and 30-in. c.-i. pipe.

NOTTINGHAM, OHIO. — BALDWIN BROS., Rose Bldg., Cleveland, Ohio, have been awarded contract at $11,970, for constructing water mains in a number of streets here. Bids were opened on Feb. 18.

YOUNGSTOWN, OHIO.—The Commercial Water Co., which has bought the Jackson stream in Coitsville Township, will commence early this spring to erect a large dam on the property purchased from S. D. L. Jackson. The water company will spend in constructing of dams, stone walls, piping, etc., about $500,000, and expect to be able within a year to supply water in this city for domestic purposes.

SHELBYVILLE, IND.—The Shelby County Water Co. is preparing to ask for bids for the construction and equipment of a water system.

GREEN CASTLE, IND.—The municipality is contemplating constructing a filtration plant.

PERU, IND.—The City Council is asking for bids for the construction of a new boiler plant at the city pumping station.

ST. PAUL, MINN.—The Water Board on Feb. 15, authorized the laying of two miles of water mains in the interurban district. John Cauldfield is Secy. Water Com.

GILBERT, MINN.—Bonds for $15,000 for completing the water and light plants have been voted.

COLUMBUS, KAN.—Bids are asked until noon, March 21, by F. H. Hawkins, City Clk., for all materials necessary to equip and install an extension to the present water-works system. The work will consist of approximately the following: 3,200 ft. 6-in. water mains; 7,400 ft. 4-in. water mains; two 6-in. valves, with boxes; four 4-in. valves, with boxes; 16 hydrants; necessary specials. Plans and specifications are on file and may be seen at the office of the City Clerk, Columbus, and at the office of M. A. Earl & Co., Engrs., Muskogee, Okla.

HARDY, NEB.—Grant & Letton, F. & M. Bldg., Lincoln, Neb., are preparing preliminary plans for the construction of water-works here.

GRAND RAPIDS, N. DAK.—The citizens on Feb. 14 voted to issue $16,000 of bonds for water mains and $35,000 for intake pipe.

HURON, S. DAK.—Bids will be received until 7.30 p. m., March 4, by the City Council for furnishing and laying c.-i. water mains, requiring in all 15,712 lin. ft. of from 4 to 10-in. pipe, 20,000 lbs. special castings, 15 new 5-in. fire hydrants. L. P. Wolff is Engr., St. Paul, Minn.; J. H. Kemerer is City Clk.

FAULKTON, S. DAK.—Bids will be received until March 21 by J. T. Mitchell, City Audr, for furnishing material and constructing a steel water tower upon a steel water tank of 60,000 gallons capacity.

HARRISON, ARK.—The Harrison Water Co. will construct 25,000 ft. of mains and two additional storage tanks and the city has ordered the installation of fire hydrants every 600 ft. on all mains laid.

DALLAS, TEX.—Bids are asked until March 4 by the city for drilling a deep well to Trinity sands in the vicinity of Bachman Dam. The city is now drilling a well near Turtle Creek reservoir, and it is estimated that the two wells will have capacity of 2,000,000 gallons daily. J. M. Preston is City Engr.

FORT RENO, OKLA.—Bids are asked until 1 p. m., March 14, by Capt. L. Hardeman, Depot Q. M., U. S. A., Fort Reno, Remount Depot, Okla., for constructing steel tank and tower, eleven concrete cisterns and twelve wells.

SAPULPA, OKLA.—City Council has engaged Harper & Goodwin, Kansas City, Mo., to supervise the construction of water-works. Estimated cost, $125,000.

ROCKY FORD, COLO.—Bids will be received about April 1, by the Pearl Springs Water Co., for the construction of a water system, to cost about $500,000. R. A. Sawyer, of Rocky Ford, is Engr.

KIOWA, COLO.—Bids are asked until 2 p. m., March 19, at the office of the Kiowa Valley Municipal Irrigation District, at the residence of Charles T. Walker, Section 13, Township 6 South, Range 63 West, Kiowa, for the construction and furnishing the material for the several dams, canals and ditches to be built by the district. Plans and specifications may be seen at the office of F. H. Whiting, District Engr., Room 239 Century Bldg., Denver, Colo., or at the office of The Kiowa Valley Reservoir & Irrigation Co., 210, 211 and 212 McPhee Bldg., Denver, or at the office of the District after March 12.

PORTALES, N. MEX.—Contract for the construction of irrigation plant has been awarded to the WESTERN CONSTRUCTION CO., of Wichita, Kan., at $350,000. Work has begun.

CENTRAL POINT, ORE.—Contract for constructing water-works, bids opened on Feb. 15 has been awarded by the city to JACOBSON BADE CO., of Portland, at $21,300.

PORTLAND, ORE.—The BARBER ASPHALT PAVING CO., Worcester Bldg., Portland, has been awarded contract at $55,000, for laying water mains in Laurelhurst.

LOS ANGELES, CAL.—Bids will be received until March 7 by the Board of Water Commissioners for water meters.

MONROVIA, CAL.—The city will soon let contract for a supply of pipe to complete the water system. Henry Gierlich is City Engr.

PALO ALTO, CAL.—Bids will be received by the Board of Public Works until 5 p. m., March 7, for furnishing materials and labor and constructing a reinforced concrete standpipe, or a steel standpipe, or hemispherical bottom tank and tower complete with foundation. The following dimensions will be required: If a standpipe, the height shall be 70 ft. above the ground and the inside 30-ft. diameter; if a steel tank and towers, the height to top of tank shall be 70 ft. and to the bottom not over 30 ft. above the ground. The capacity of the tank shall not be less than 150,000 gallons. A. G. Walker is Clk.

KAYSVILLE, UTAH.—We are officially advised that the PORTLAND WOOD PIPE CO., of Portland, Ore., was awarded contract on Feb. 11, for furnishing pipe and fittings to the city. The amount of pipe is 24,085 ft. of 4-in., 11,070 ft. of 6-in., 9,745 ft. of 8-in., with valves, specials, etc.

SALT LAKE CITY, UTAH.—We are officially advised that bids were received as follows by the city on Feb. 18 for the construction of water mains: P. J. MORAN, Salt Lake City, $49,439 (awarded contract); Doyle Bros. & Schwartz, $58,701; James Kennedy Construction Co., Salt Lake City, $59,453; McKay & Reed, $59,477. G. F. McGonagle is City Engr.

OAXACA, MEX.—See item under Sewerage

OTTAWA, ONT.—The INTERNATIONAL MARINE & SIGNAL CO., Broad St., Ottawa, has been awarded contract at $17,290, for supplying and delivering 3,000 lin. ft. of 42-in. intake pipe. Bids were opened on Feb. 15.

SASKATOON, SASK.—Bids are asked by J. H. Trusdale, City Clk., until 7.30 p. m., March 14, for c.-i. pipe and specials, fire-hydrants, gate-valves and valve boxes.

Bids are also asked until 7.30 p. m., March 21, for material and erection of a steel standpipe.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

ANSONIA, CONN.—Bids will probably be received in May for preliminary work of reconstructing the trunk line sewer here. Estimated cost, about $35,000. Vincent B. Clark is Engr., Ansonia.

PORT CHESTER, N. Y.—Bids will be received until March 7 by the Board Village Trustees for constructing sewers in Midland Ave., Fawcett, Eldridge and other streets. Edward F. J. Connolly is Clk.

*MONTICELLO, N. Y.—Bids will be received by the Sewer Commissioners until March 17 for construction of a portion of the system of sewers and a sewage disposal plant. Plans and specifications are on file at the office of Engineering News, New York. Dr. Russel W. Allan is Secy.

ROCHESTER, N. Y.—Plans are being prepared by the City Engineer for the plant to take care of the effluent from the large sewer in lower Genesee River to include the construction of a small electric light plant to be owned by the city. The plant will be built on the farm of 150 acres and will generate the power for lighting the reducing and screening plant and operating sieves.

The city is planning to rebuild the Lake Ave. outlet sewer. Estimated cost, $80,000.

UTICA, N. Y.—SHEA & HENWOOD have been awarded contract for the construction of the sewer and water mains under the new barge canal to Lathrop.

BINGHAMTON, N. Y.—Bids are asked until 4 p. m., March 9, by the Board of Contract and Supply for the construction of a sewer in Moeller St., about 1,280 ft. D. C. Herrick is Clk.

LONG ISLAND CITY (L. I.), N. Y.—Bids were received as follows on Feb. 28 by Lawrence Gresser, Pres. Boro. of Queens, for constructing sewers and appurtenances in Van Ault Ave., from Harris Ave. to Payntar Ave., and in Payntar Ave., from William St. to Sherman St.: James A. Boyce, 9 Jackson Ave., Long Island City, $53,490; Dunbar Contracting Co., $53,044; W. J. Brennan, $40,167; J. F. Olvaney, $48,224; J. L. Segretto, 215 Montague St., Brooklyn, $32,523; Thos. F. Tuohy Co., 89 Main St., Brooklyn, $57,640; Green Contracting Co., $39,414; Peace Bros., 30 Main St., Brooklyn, $53,897; Henry J. Mullen, 289 Fulton St., Brooklyn, $33,633.

WASHINGTON, N. J. — The UNION BUILDING & CONSTRUCTION CO., Passaic, N. J., has been awarded contract at $50,230, for the construction of a sewer system and disposal plant in this city. The work includes the following: About eight miles of sewer pipe, from 6-in. to 18-in. diameter, and a complete disposal plant. The work is to begin on or before April 1 and to be completed on or before Dec. 1.

Bids were opened on Feb. 14. List of bidders noted on Feb. 24. Clyde Potts is Engr, 30 Church St., New York.

APPALACHIA, VA.—The city has voted $14,000 of bonds for sewer construction, street improvements and a bridge over the Powell River.

WILLIAMSBURG, VA.—The city will sell a franchise for sewer system. Bids are asked until March 23. John L. Mercer is Ch. Water Com.

PORTSMOUTH, VA.—Bids are asked by the Sewerage Commission at the office of the City Clerk until 8 p. m., March 4, for furnishing and erecting, including foundations and all connections, etc., complete, ready for operating, mechanical equipment and stack for operating of sewage ejectors, consisting of (a) two air compressors of cross compound steam Meyer cut off, Duplex airtype, with mechanically moved suction valves operating non-condensing; each compressor to be capable of a displacement of 1,400 cu. ft. per minute operating at a rotative speed of not exceeding 115 r. p. m. (b) Two boilers of 125 HP. each, arranged to be set in one battery, so that either boiler can be independently operated; boilers to be provided with all necessary valves, gages, breechings and connections to smoke flue. Two boiler feed pumps, each one of sufficient capacity to supply the boiler. One feed water heater and purifier of sufficient capacity to supply the boilers. (c) One complete perforated radial brick chimney to take care of two boilers of 125 HP. each. V. O. Cassell, Jr., is City Engr.

NORFOLK, VA.—The Board of Control has awarded contract to E. J. McGUIRE of Norfolk, at $12,570 for the construction of sewers in Greater Ghent; W. T. Brooke is City Engr.

ATLANTA, GA.—The citizens on Feb. 15 voted to issue $1,350,000 of bonds for the extension of the sewer system and the disposal and purification of the city sewage. Hering & Fuller are Engrs., 170 Broadway, New York.

PERRY, FLA.—Bids were opened on Feb. 8 by the Board Bond Trustees, J. C. Calhoun, Secy., for constructing a sanitary sewerage system, requiring about three miles of pipe, 8 to 15-in., manholes, flushtanks, etc., from the plans of William W. Lyon, Engr., 305 Dural Bldg., Jacksonville. Contract has been awarded to BRYAN & CO., of Jacksonville, at $13,552 including pipe. Other bids including pipe, were: Garratson & Co., Jacksonville, $15,159; Isaac Mishear, Chattanooga, Tenn., $14,924; Sullivan & Long, Bessemer, Ala., $14,575. Bids without pipe were: Dysard Construction Co., Atlanta, Ga., $11,640; David Crocket, Birmingham, Ala., $13,503.

HARTSELLS, ALA.—City is planning the construction of a sewer system.

DOTHAN, ALA.—The city will construct concrete storm and sanitary sewers. Bids are asked. R. W. Lisenby is Clk.

ENSLEY, ALA.—The Corey Land Co., Robert Jemison, Jr., Pres., Birmingham, Ala., will construct 2½ miles of storm sewers and 8½ miles of sanitary sewers of various sizes.

MERIDAN, MISS.—W. G. Wetmore, City Engr., will prepare plans and specifications and asks bids for the construction of storm sewers.

AMHERST, OHIO.—The City Council has selected L. E. Chapin, of Canton, Ohio, to prepare plans and specifications for the construction of a sewer system.

LOUISVILLE, OHIO.—W. H. RALSTONE, Mount Vernon, Ohio, has been awarded contract at $26,616, for the construction of sewers and sewage disposal plant. The work includes 1,500 lin. ft. of 12-in.; 3,920 lin. ft. of 10-in.; 21,215 lin. ft. of 8-in.; 165 lin. ft. of c.-i. pipe; 72 manholes, 16 flush tanks; four filters, 104.5 ft. × 104.5 ft.; one dosing tank 24 ft. × 24 ft.; one double screen chamber, 3 ft. × 8.54 ft.; one pump well, 8 ft. × 8 ft.; one settling tank 10 ft. × 49 ft.; one settling tank, 8 ft. × 49 ft., with all necessary valves, piping, gates, etc.; 15,000 cu. yds. cut and 7,805 cu. yds. sand and gravel in filters.

CINCINNATI, OHIO.—Contract for building a storm water sewer in Harrison Ave., Urweiler Ave., Stathem Ave., and Poplar Court was awarded by the city on Feb. 18, to W. S. HOLLAENDER, 1330 Race St., Cincinnati, at $11,540, subject to the approval of the Board of Control.

CLEVELAND, OHIO. — Plans are being made for the construction of a sewer up Dugway Brook from the intercepting sewer to Euclid Ave.

BLOOMINGTON, IND.—See item under Light and Power Plants.

ELKHART, IND.—The following contracts have been awarded by the Board of Public Works for the construction of sewers: NORTHERN CONSTRUCTION CO., city, at $11,827, for the construction of the Rosedale sewers in Prairie St., South Sixth St., Wagner Ave., Chapman Ave., Delaware St., Park Ave., La Salle St., South Third St., and McKinley Ave. Total number of feet, 1,263.

MARION, IND.—Plans are being prepared for the construction of a sewer system two miles in length in West Marion, to give relief to all the factories west of Western Ave.

FAIRFIELD, ILL.—The Board of Local Improvements has decided to construct gravity sewer. Estimated cost, $25,000. C. W. Brown, of Jacksonville, is Engr. Bids will be asked in April.

EAST ST. LOUIS, ILL.—See item under Streets and Roads.

ROCKFORD, ILL.—Bids are asked until 11 a. m., March 4, by S. B. Hand, City Engr., for the construction of the West End storm sewer, Garfield Ave. sewer and East End District sewer, including 17,952 ft. of pipe sewer and 480 ft. of concrete sewer. Estimated cost, $22,536.

METROPOLIS, ILL.—Bids will be received until March 7, by the city for the construction of a sewer system from the plans of the Municipal Engineering Co., Woolner Bldg., Peoria. Estimated cost, $62,000.

CANTON, ILL.—A. T. Maltby, 803 Great Northern Bldg., Chicago, completing plans for the proposed system of storm sewers, two main sanitary sewers and sewage disposal works. Cost, $50,000.

DEKALB, ILL.—Plans are being prepared for the construction of the proposed sewer system.

HARRISBURG, ILL.—The city has decided to construct a concrete sewer here.

GRINNELL, IOWA.—Bids will be received by the City Council until March 7 for furnishing sewer pipe for the year 1910. L. D. Kenamerer is Mayor.

Contract for constructing storm sewers, bids opened on Feb. 10 has been awarded to GUY E. SMITH, of Indianola, at $5,236. W. F. Beard is City Engr.

MINNEAPOLIS, MINN.—For list of bids received by the City Council on Feb. 25 for various kinds of sewer work and paving, see item under Contract Prices, headed "Paving and Sewer Materials."

CANBY, MINN.—Bids were opened on Feb. 8, as follows at the office of P. O. Sherrum, City Recdr., for constructing about 8,600 ft. of 6-in., 8,400 ft. 8-in., 1,200 ft., 10-in. sewer, 1,450 ft. 4-in., 4,075 ft. 6-in., 350 ft. 8-in., 800 ft. 10-in., tile subdrain, 50 manholes, sewage settling tank, 6 or 8 HP. gasoline engine, 4-in. centrifugal pump, vertical submerged, sewage well and pump house from plans of John Wilson, Engr., Mankato: G. S. Redmond, Pipestone, $25,759; L. H. Skiff, Brookline, S. Dak., $27,013; Roberts & Few, Brookings, S. Dak., $26,869; L. W. Schruth, Fargo, N. Dak., $26,579; Pastoret & Lawrence, Duluth, $27,518; W. E. Rosecrans, Canton, S. Dak., $25,894; Cook Construction Co., Des Moines, Iowa, $26,874; Elkhorn Construction Co., Leigh, Neb., $29,128; W. D. Lovell, Minneapolis, $25,106; Tanner Bros., Minneapolis, $24,384; Frazer & Danforth, Rochester, Minn., $25,764.

OMAHA, NEB.—J. J. Hanighen has submitted the lowest bid to the city for sewers in the downtown district of the city at $15,893.

HURON, S. DAK.—Bids are asked until 7.30 p. m., March 4 by the City Council, for the construction of lateral sewers. The work includes 840 lin. ft. of 15-in. pipe, 440 lin. ft. of 12-in. pipe, 440 lin. ft. of 10-in. pipe, 11,370 lin. ft. of 8-in. pipe, 26 manholes, four standard design flush tanks, two combined manholes and flush tanks, one inspection pipe and twelve inlets and connections. L. P. Wolf, St. Paul, Minn., is Consulting Engr.

ST. LOUIS, MO.—All bids opened on Feb. 11 by the Board Public Improvements for constructing a 5 to 11-ft. sewer in the new North Harlem Creek Joint Sewer District have been rejected as excessive. Sewer will be about 2¼ miles in length, 1½ miles to be of concrete and ¾ of a mile of brick. Estimated cost, $246,120. W. B. Dryden is Secy.

KANSAS CITY, MO.—The Board of Public Works on Feb. 11, approved plans and specifications for the Brush Creek sewer, to extend from the state line to Jackson Ave., a distance of about six miles. It will be 2½ ft. in diameter at the western and 7 ft. at the eastern ends. Estimated cost, $100,000.

DE SOTO, MO.—S. C. Campbell, of De Soto, is designing a sewer system for De Soto and would like to hear from companies handling supplies for such work.

HOUSTON, TEX.—KELSO & VAUTRIN, Galveston, Tex., have been awarded contract by the city at $10,000, for construction of the sanitary sewer in the Fourth Ward. H. B. Rice is Mayor.

CLINTON, OKLA.—Bids are asked until 8 p. m., March 15, by C. C. Smith, City Clk., for the construction of 1,200 ft. of 18-in., 4,970 ft. of 15-in., 1,520 ft. of 12-in., 10,900 ft. of 10-in., 7,000 ft. of 8-in. sewers of first quality pipe, together with manholes and other appurtenances. J. L. O'Hearn, Clinton, Okla., is Consulting Engr.

ARDMORE, OKLA.—The city has awarded contract at $25,640 to the HEALY CONSTRUCTION CO., McAlester, Okla., for the construction of sanitary sewers.

*LAWTON, OKLA.—Bids were opened on Feb. 16 by the Secretary of the Interior, Washington, D. C., for constructing a sanitary sewer system for the north addition to the city of Lawton, as follows: H. H. Cook & Son, Junction City, Kan., $24,599; E. M. Eby, Wellington, Kan., $24,049; Kerby, Mayfield & Shaw Engineering & Construction Co., Lawton, $27,224 and $23,658.

GREELEY, COLO.—Bids will be received by W. A. Hotchkiss, City Clk., for furnishing the material and laying the several lines of sewer in Sewer District No. 45. Separate bids will be considered on furnishing material and doing the work, in either glazed or cement tile. Plans and specifications may be seen at the office of the City Engineer.

SAN ANSELMO, CAL.—Bonds for $15,000 have been sold to be used for the construction of sewers.

RICHMOND, CAL.—The City Council has awarded the following contracts: For laying an 8-in. sewer in Nevin St., from C St. to First St.; in Barret St., from A to B Sts.; in C St., from Nevin to Barret Sts.; in B St., from Nevin St. to right of way of the Atchison, Topeka & Santa Fe Ry.; in A St., from Nevin to Ripley Sts., to MICHAEL MURPHY; also for laying 6-in. sewers in Ohio St., from Sixth to Tenth Sts., in Florida St., from Eighth to Tenth Sts.; in Maine St., from Eighth to Tenth Sts.; in Virginia St., from Eighth to Tenth Sts.; in Seventh St., from Florida to Ohio Sts., to DUNBROW & WHITE.

TORONTO, ONT.—The Board of Control on Feb. 25, awarded the STANLEY COAL & IRON CO., LTD., contract for c.-i. pipe and specials for the main drainage works, at $17,642. C. H. Rust is City Engr.

OAXACA, MEX.—S. PEARSON SONS, Mexico City, Mex., have been awarded contract at $500,000, for the construction of a sewerage and water-works system here.

GARBAGE DISPOSAL.

BUFFALO, N. Y.—The Buffalo Extractor Corporation has been incorporated with $50,000 capital stock and O. H. A. Wannenwetsch, A. C. Lembke and R. T. G. Liesinger as directors, to build and operate garbage disposal plants.

ATLANTA, GA.—The citizens on Feb. 15 voted to issue $50,000 of bonds for the purchase of sites and erection of additional garbage crematories.

WENATCHEE, WASH.—The city proposes to construct a garbage crematory. Nothing definite has yet been done. S. Sumner is City Clk.

SAN DIEGO, CAL.—Two bids were received on Feb. 17, by Frank Salmons, St. Supt., for the three water flushing machines which he proposes to buy for cleaning the city's streets. Theodore F. Snyder submitted the lowest bid at $3,270 for the three machines. The Lyons Implement Co., bid $3,597.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

SPRINGFIELD, MASS.—Bids will be received until March 5 by the City Clerk, Municipal Bldg., for furnishing trap-rock, cement, sidewalk, crosswalk, sewer and well brick, castings, curbing, vitrified clay pipe, etc., to the city of Springfield, Street and Sewer Dept. A. A. Adams is Supt. of Streets and Sewers, 43 Bridge St.

NEW YORK, N. Y.—The following bids were received by Cyrus C. Miller, Pres. Boro. of The Bronx, on Feb. 24, for regulating, grading, setting curbstones, flagging the sidewalks, laying crosswalks, building approaches, drains, walls, etc., and placing fences in East 222d St., from Bronxwood Ave. to Carpenter Ave.: Briggs & McLaughlin, 346 East 81st St., $25,082; John Farrell, $23,436; F. V. Smith Contracting Co., 147 East 125th St., $23,877; Michael Marrone, 414 East 116th St., $23,661; F. A. Curry, 32 North St., The Bronx, $21,682; L. C. Rose, 737 East 180th St., $22,287; C. Fusco, $19,880; Wakefield Construction Co., 39 East 222d St., $18,075.

ALBANY, N. Y.—Bids will be asked for soon by the State Highway Commission for the construction of about 40 additional State highways, the date for opening probably being set in the latter part of March. S. Percy Hooker is Shn. of Comn.

*PORT CHESTER, N. Y.—Bids will be received until 8 p. m., March 7, by Thomas F. J. Connolly, Village Clk., for regulating, grading and macadamizing and otherwise improving Putnam Ave., from Willett Ave. to King St. The cost of the work is estimated at $25,000. Plans and specifications are on file at the office of Engineering News, New York.

ASBURY PARK, N. J.—We are officially advised that the contract for the paving of the Park Ave. bridge over Deal Lake with wood blocks was awarded to the AVON CONSTRUCTION CO., of Avon, N. J., represented by John Thomson, of Avon, on a bid of $9,770. Five other bids were received as follows: Nelson Meridith Co., $10,432; B. L. Smock, Asbury Park, $12,-810; U. S. Wood Preserving Co., New York, $10,999; Schwiers, Sutton Co., $12,272; Chas. E. Burd, Red Bank, N. J., $11,169. E. E. Throckmorton, 552 Broadway, Long Branch, N. J., is Engr.

BASKING RIDGE, N. J.—Bids are asked until 2 p. m., March 9, by the Barnards Township Committee for construction of the Dumont Road at Far Hills, length, 1,342 ft., and a section of Claremont Road at Bernardsville, total length, 1,770 ft. Plans and specifications may be seen at the office of Antony Schimacher, Township Engr., Bernardsville, N. J.

JERSEY CITY, N. J.—Bids are asked until 2 p. m., March 7, by the Board of Street and Water Commissioners for repairs to asphalt pavements. John J. Heaney is Chn. of the Com. on Streets and Sewers.

OIL CITY, PA.—Bids will be received by C. W. Mullaley, Controller, until March 14 for grading, curbing and paving about 29,000 sq. yds.

GALLITZIN, PA.—Bids are asked until 8 p. m., March 5, by the Borough of Gallitzin, for paving with vitrified brick and Ligonier block, portions of its following-named highways: South Main, East Chestnut, West Chestnut, Jackson, Church and North Main Sts. D. W. Dillman is Engr., Altoona Trust Bldg., Altoona.

PITTSBURG, PA.—The County Commissioners let contracts for 49,640 tons of screenings and ballast to be used on the improved roads during the year. Contracts were also entered into for the hauling of the material. The prices are a little lower than a year ago. The ballast and screenings are used in repairing the macadamized roads, and separate bids were made for each road. The successful bidders follow: REED F. BLAIR & CO., Noblestown Road, $1.09 a ton; Dinsmore, $1.09; Steubenville Pike, $1.07; Campbells Run, $1.09; Ridge, $1.09; Washington, $1.19; Bellevue, $1.07. CLYDESDALE STONE CO., McKees Rocks and Forest Grove, $1.07 a ton; Library, $1.19. McLAUGHLIN CONTRACTING CO., Washington Pike, $1.16 a ton; Verona, $1.13. BOOT & FLINN, Logans Ferry, $1.19 a ton. J. C. McSPADDEN, Evergreen extension, $1.04 a ton; Kittanning and Dorseyville, $1.04; Troy Hill, $1,05; Peoples, $1[illegible] A. V. PURNELL, Lincoln Way, $1.07 [illegible]on; Dravosburg, $1.07. Contracts for [illegible] Turtle Creek and Munroeville, Bosto[illegible] extension and Three Degree and Gibsonia [illegible]ads have been held up.

The following are the successfu[illegible] bidders on the hauling contracts: SEBOLT [illegible] SKILES, McKees Rocks and Forest Grove [illegible] cts. a ton; Washington Pike, 70 cts.; [illegible]rona, 50 cts.; Logan Ferry, 40 cts.; Dr[illegible]burg, 35 cts.; Bellevue, $1.25. FLINN BR[illegible], Kittanning and Dorseyville, $1.50 a [illegible] EAGLE TRANSFER CO., Noblestown, 50 [illegible] a ton; Steubenville Pike extension, 74 [illegible] Ridge, 59 cts. EDWARD VERO, People[illegible] 90 cts. a ton. DONALD McNEIL, Library [illegible]4 cts. a ton. CONESTOGA CONTRACTIN[illegible] CO., Lincoln Way, 52 cts. a ton; Washi[illegible]n Road, $1.06; Evergreen extension, $1.30 [illegible] Freeport, 66 cts.; Troy Hill, $1.15. H. D. [illegible]MUNN, Dinsmore, 47 cts. a ton.

TOWSON, MD.—Bids are ask[illegible] by the Highway Commission of Baltimo[illegible] County, Towson, until noon, March 10, f[illegible] improving the public highway between [illegible]oadway and Beaver Dam Bridge, known a[illegible]he Falls Road, Section 4.

APPALACHIA, VA.—See item under Sewerage.

FORT MORGAN, ALA.—Bids are asked by Capt. H. B. Chamberlin, Q. M., until 1.30 p. m., March 10, for the construction of brick road pavements, board walk and terra cotta pipe drain at Fort Morgan.

LEESVILLE, LA.—Bids will be received by the Mayor and Board of Aldermen until March 8 for constructing 30,000 sq. ft. of concrete sidewalk and curb. J. B. Sterns is City Engr.

LOUISVILLE, KY.—Bids are asked until March 9 by the Board of Public Works for paving Broadway on both sides, from 38th St. to Shawnee Park, and Chestnut St., on both sides, from 38th St. to Shawnee Park. The paving is to be of granitoid, and the estimated cost is $17,000.

Estimates, in the hands of the Board of Public Works, show that 250,000 vitrified brick will be necessary for the paving of streets this year. The following lettings for granitoid sidewalks have been announced by the Board: To HENRY BICKEL CO., north side Market St., between Floyd and Preston Sts.; both sides Shelby, between Main and Washington; east side Floyd, between Main and Market; south side High, between 16th and 17th; both sides Main, between 19th and 20th; west side Center, between Walnut and Chestnut; east side Center, betwen Walnut and Chestnut; south side Magazine, between Logan and Swan; northeast side Bassett, between Longest and Ransdell; both sides Eighth, between Oldham and St. Catherine; south side Grayson, between Eighth and Ninth; both sides Hickory, between Mulberry and Texas; east side Vine, between Breckinridge and Page.

To STAEBLER & McFARLAND: South side Fulton St., between Jackson and Hancock; south side Fulton, between Hancock and Shelby.

To J. W. GLEASON: West side Mary, between Swan and Dandridge; east side Midland, between Bardstown Road and Everett; both sides Fourth Ave., between K and L; south side High, between 37th and 38th.

To L. R. FIGG & CO.: East side Seventh, between Main and Nelson; east side 34th, between Rudd and High; east side Center, between Green and Walnut; both sides 22d, between Duncan and Griffiths; south side O'Hara, between 16th and 17th; south side 22d, between Main and Rowan; both sides Walnut, between 16th and 17th; west side Eleventh, betwen Main and Rowan; east side 28th, between Walnut and Madison; both sides 22d, between Rowan and Duncan.

CINCINNATI, OHIO.—Bids are asked by the Commissioners of Hamilton County, Fred Dreihs, Clerk, until noon, March 25, for the following county work: Under Specification No. 11, for the improvement of Second Ave., north from Liberty St. 1,250 ft. in Green Township.

SYLVANIA, OHIO.—Bids will be received until March 15 by W. B. Harris, Village Clk., for furnishing material and paving with vitrified brick or block a portion of Ohio Ave. and Division St. Riggs & Sherman are Engrs., 613 Nasbyr Bldg., Toledo.

ATHENS, OHIO.—The contract for paving Mill St. with brick has been awarded to MILLS & MILLER, of Milfield, for $10,099. F. H. Beckler is City Engr.

SANDUSKY, OHIO.—Bids are asked by John Bing, Dir. Pub. Service, until noon, March 5, for furnishing the necessary crushed stone to macadamize and repair streets during the year 1910.

YOUNGSTOWN, OHIO.—Herman Deusing, Dir. Pub. Service, awarded the following contracts on Feb. 21: Shehy St., brick pavement, to TURNER & OLSON, at $1,773; St. Louis Ave., brick pavement, to S. H. DeGROODT at $11,799; Truesdale Ave., brick pavement, to JAMES McCARRON at $15,-081; Duquesne St., brick pavement, to KENNEDY BROS., at $11,236; Evergreen Ave., brick pavement, to MARTIN FLEMING at $10,785; Hilker St., brick pavement, to KANE & COMISKEY, at $2,825; Darrow St. sewer to PAT GRADY at $1,161; Shehy St. grading to KANE & COMISKEY, at $1,445, and the Sycamore and Andrews Ave. district sewer to P. DIORIO at $1,341.

INDIANAPOLIS, IND.—The Board of Public Works will ask for bids for paving East Michigan St. with either brick, asphalt or creosoted blocks, as soon as plans ordered are completed.

GOSHEN, IND.—The City Council will receive bids for paving Third St. and Lincoln Ave. with either asphalt, macadam, vitrified brick or creosoted blocks. Charles Witt is City Engr.

LA FAYETTE, IND.—Bids are asked by the Commissioners of Tippecanoe County until March 12 for the construction of the F. M. Buskirk, et al, gravel road in Tippecanoe Township. John P. Foresman is County Audr.

BLUFFTON, IND.—The Commissioners of Wells County will ask for bids soon for the construction of 7,920 ft. of crushed stone road, known as the Gerber Schoolhouse Road.

BRAZIL, IND.—Bids are asked by the Board of Commissioners until 11.30 a. m., March 1[illegible] for the construction of 8,308 ft. of gravel road in Washington Township. James [illegible] Burnes is County Audr.

RICHMOND, IND.—The Commissioners of Wayne County will ask for bids soon for the construction of three miles of stone road in Center Township. This road is to have cement curb and gutters the entire distance.

LAPORTE, IND.—Bids are asked by the Commissioners of Laporte County until March [illegible] for the construction of two stone roads. [illegible] C. Miller is County Audr.

DANVILLE, IND.—Bids are asked by W. H. Nichols, Audr. of Hendricks County, until March 15 for the construction of four gravel roads in Center Township.

MOUNT CLEMENS, MICH.—Bids are asked by the City Council until 7.30 p. m., March 21, for paving South Front St., between Cass Ave. and Terry St., and Market St., between the Clinton River and North Gratiot Ave. Paul Matthews is City Clk.

MOUNT PLEASANT, MICH.—The contract for paving with brick portions of Broadway and Main St. has been awarded to W. W. HATCH & SONS, of Goshen, Ind., at about $25,000.

CARMI, ILL.—Bids will be received until March 7 by the Board of Local Improvements for paving with brick various streets.

EAST ST. LOUIS, ILL.—Contracts for brick paving have been awarded as follows: For Illinois Ave., from 13th St., east, including sewers and paving, to J. & P. KELLEY, for $127,175; for 25th St. and Waverly Ave. and 40th St., to MEYER & THOMAS CONSTRUCTION CO., for $51,378; the contract including sewers and paving, also a concrete steel bridge, to cost $7,381; also for Belmont Ave., including sewer and paving, to MEYER & THOMAS CONSTRUCTION CO., at $25,113. Bids were received on Feb. 16.

WENASHA, WIS.—Bids will be received by the Committee on Streets, D. McMahon, Chn., until March 14 for grading, curbing and paving.

GREEN BAY, WIS.—We are officially advised that bids were received as follows by the Committee on Streets and Bridges on Feb. 17 to improve (a) West Walnut St., from Fox River Bridge to Water St., 969 sq. yds. pavement, 428 lin. ft. curb and gutter; (b) West Walnut St., from Water St. to Oakland Ave., 5,377 sq. yds., 2,502 lin. ft.; (c) Shawano Ave., from Oakland Ave. to Allard Ave., 5,980 sq. yds., 2,964 lin ft.; (d) Dousman St., from Fox River Bridge to Broadway, 2,160 sq. yds., 810 lin. ft.; (e) Dousman St., from Broadway to Allard Ave., 12,960 sq. yds., 5,082 lin. ft.; (f) North Ashland Ave., from Dousman St. to Mather St., 6,093 sq. yds., 3,809 lin. ft.; (g) South Ashland Ave., from Mason St. to Sixth St., 3,677 sq. yds., 2,372 lin. ft.; (h) Fifth St., from Broadway to Greenwood Ave., 4,933 sq. yds., 3,444 lin. ft.; (i) North Chestnut Ave., from Mather St. to Phoebe St., 2,306 sq. yds., 1,430 lin. ft.; (j) North Oakland Ave., from West Walnut St. to Dousman St., 3,584 sq. yds., 2,586 lin. ft.; (k) East Walnut St., from Fox River Bridge to Washington St., 1,134 sq. yds., 551 lin. ft.; (l) Pine St., from Jefferson St. to Monroe Ave., 1,980 sq. yds., 1,320 lin ft.; (m) Doty St., from Washington St. to Monroe Ave., 4,693 sq. yds., 2,640 lin. ft.; (n) Stuart St., from Washington St. to Madison St., 3,337 sq. yds., 1,980 lin. ft.; (o) Crooks St., from Washington St. to Monroe Ave., 4,306 sq. yds., 2,630 lin. ft.; (p) Chicago St., from Washington St. to Monroe Ave., 2,466 sq. yds., 1,523 lin. ft.; (q) Monroe Ave., from Main St. to Porlier St., 18,296 sq. yds., 10,509 lin. ft.; (r) Howard St., from Jefferson St. to Madison St., 990 sq. yds., 660 lin. ft.; (s) School St., from Madison St. to Monroe Ave., 990 sq. yds., 660 lin. ft.; (t) Moravian St., from Madison St. to Monroe Ave., 990 sq. yds., 660 lin ft.; (u) Adams St., from Main St. to south line, Astor Pl., 13,684 sq. yds., 6,623 lin. ft.:

Andrews Asphalt Paving Co., of Hamilton, Ohio: Bermudez Lake asphalt—(a) $2,300, (b) $12,357, (c) $13,143, (d) $4,725, (e) $28,260, (f) $13,785, (g) $84,050, (h) $11,490, (i) $5,210, (j) $8,380, (k) $2,486, (m) $10,871, (n) $7,647, (o) $9,911, (p) $5,670, (q) $41,600, (r) $2,300, (s) $2,300, (t) $2,300, (u) $30,890; Trinidad Lake asphalt—(a) $2,250, (b) $11,573, (c) $12,845, (d) $4,700, (e) $27,141, (f) $13,481, (g) $8,172, (h) $11,094, (i) $5,096, (j) $8,102, (k) $2,445, (l) $4,422, (m) $10,236, (n) $7,320, (o) $9,496, (p) $5,446, (q) $40,016, (r) $2,211, (s) $2,211, (t) $2,211, (u) $29,704.

Rudolph S. Blome Co., 79 Dearborn St., Chicago, Ill.: Blome granitoid—(a) $2,250, (b) $12,950, (c) $14,450, (d) $4,900, (e) $29,900, (f) $14,100, (g) $9,300, (h) $12,350, (i) $5,350, (j) $8,900, (k) $2,550, (l) $4,600, (m) $11,450, (n) $8,150, (o) $10,550, (p) $6,050, (q) $45,200, (r) $2,500, (s) $2,500, (t) $2,500, (u) $32,500.

Eul, Cochems & Nebel: Concrete—(m) $7,931, (n) $5,639, (o) $7,191; Tar macadam—(m) $8,307, (n) $5,900, (o) $7,536.

Fielding & Shepley, 216 University Ave., St. Paul, Minn.: Brick—(a) $2,508, (b) $13,840, (c) $15,500, (d) $5,518, (e) $32,000, (k) $2,949, (m) $12,300, (n) $8,800, (o) $11,400, (q) $47,196, (u) $34,498; Sandstone block—(a) $3,633, (d) $8,024, (k) $4,264; Creosoted block—(b) $15,780, (c) $17,660, (e) $36,690, (m) $14,000, (n) $10,000, (o) $12,950, (q) $3,967, (u) $39,660.

General Contracting Co., 445 Temple Court, Minneapolis, Minn.: Asphalt—(e) $27,088, (q) $40,956, (u) $29,956; Creosoted block—(b) $14,453, (e) $33,540, (f) $16,765, (g) $10,15[illegible], (h) $13,735, (q) $50,665, (u) $36,527.

W. W. Hatch & Son So., Goshen, Ind.: Brick, cement filler—(a) $2,249, (b) $12,599, (c) $14,057, (d) $4,899, (e) $29,261, (f) $14,069, (g) $9,021, (h) $12,034, (j) $8,679, (k) $3,780, (q) $43,850, (n) $31,785; Brick, asphalt filled—(a) $2,346, (b) $13,137, (c) $14,65[illegible], (d) $5,115, (e) $3,551, (f) $14,618, (g) $9,388, (h) $12,528, (j) $9,038, (k) $3,694, (q) $45,679, (u) $33,103; Sandstone block—(a) $3,623, (d) $8,182, (k) $4,294; Creosoted block—(b) $15,063, (c) $16,808, (e) $35,198, (f) $16,812, (g) $10,712, (h) $14,303, (j) $10,228, (q) $52,269, (u) $38,036.

J. F. Hill, Chicago, Ill.: Trinidad Lake asphalt—(a) $2,144, (b) $11,410, (c) $12,489, (d) $4,611, (e) $26,477, (f) $12,551, (g) $8,030, (h) $10,712, (i) $4,768, (j) $7,721, (k) $2,418, (l) $4,092, (m) $9,884, (n) $7,043, (o) $9,118, (p) $5,228, (q) $38,692, (r) $2,201, (s) $2,201, (t) $2,201, (u) $29,043; Gilsonite asphalt—(a) $2,077, (b) $11,303, (c) $12,369 (d) $4,568, (e) $26,219,((f) $12,430, (g) $7,956, (h) $10,613, (i) $4,721, (j) $7,649, (k) $2,395, (l) $4,052, (m) $9,790, (n) $6,976, (o) $9,032, (p) $5,179, (q) $38,325, (r) $2,131, (s) $2,131, (t) $2,131, (u) $28,769; Brick—(a) $2,183, (b) $12,091, (c) $13,625, (d) $4,925, (e) $28,874, (f) $14,044, (g) $8,728, (h) $11,649, (i) $5,332, (j) $8,402, (k) $2,661, (l) $4,577, (m) $10,775, (n) $7,677, (o) $9,936, (p) $5,697, (q) $42,168, (r) $2,339, (s) $2,339, (t) $2,339, (u) $31,288.

McGrath Construction Co., Green Bay: Athens brick—(u) $30,430; Metropolitan or Danville brick—(u) $31,114; Concrete—(b) $8,215, (c) $9,348, (e) $19,395, (f) $9,561, (g) $6,061, (h) $8,133, (i) $3,617, (j) $5,872, (l) $3,115, (m) $7,336, (n) $5,261, (o) $6,784, (p) $3,918, (r) $1,587, (s) $1,587, (t) $1,587, (u) $20,698; Tar macadam—(b) $8,538 (c) $9,647, (e) $20,000, (f) $9,805, (g) $6,245, (h) $8,427, (i) $3,710, (j) $6,016, (l) $3,175, (m) $7,656, (n) 5,495, (o) $7,128, (p) $4,091, (r) $1,666, (s) $1,666, (t) $1,666, (u) $21,656.

John Rasmussen & Son, Oshkosh, Wis.: Brick—(a) $2,401, (b) $12,454, (d) $4,935, (e) $29,399; Creosoted block—(b) $15,002, (e) $35,723; Tar macadam—(c) $11,250, (f) $11,500, (g) $7,196, (h) $9,972, (i) $4,448, (j) $7,175.

White Construction Co., Raibway Exchange, Milwaukee, Wis.: Asphalt—(e) $26,286, (q) $38,919.

ALVA, IOWA.—This city has awarded contract to G. A. HEMAN, of Chickasha, Okla., for improvements on Barnes Ave., at $50,457. A. K. Hubbard is City Engr.

GRINNELL, IOWA.—Bids will be received by the City Council until March 7 for constructing cement and brick sidewalks for the year 1910. L. D. Kemmerer is Mayor.

MANKATO, MINN.—Bids will be received by the Board of Public Works, J. R. Thompson, Pres., until March 10 for paving with brick portions of Second St., also paving a portion of Main St.

ST. PAUL, MINN.—Bids are asked until 2 p. m., March 7, by the Board of Public Works for paving with sand-lime-brick patent pavement, Pine St., from Prince St. to Third St.

Bids are asked by the Board of County Commissioners, E. G. Krahmer, County Audr., until 10 a. m., April 12, for grading and macadamizing Centerville Road, costing $20,000; grading and macadamizing of Lexington Ave., costing $11,000 and macadamizing Bald Eagle Lake Ave., costing $5,000.

MINNEAPOLIS, MINN.—For a list of bids received by the City Council on Feb. 25 for various kinds of paving and sewer work, see item under Contract Prices, headed "Paving and Sewer Materials." Andrew Rinker is City Engr.

We are officially advised that the City Council has apportioned work to the amount of $95,000, to be expended on improving main thoroughfares, a large part of which will be a bituminous-macadam. Bids will be received for a bituminous-macadam mixer, engine and roller on March 11.

EMPORIA, KAN.—Bids will be received until March 8 by the City Clerk for paving with asphaltic concrete and brick, Market, Mechanic and Neosho Sts.

ANADARKO, OKLA.—The following bids were received on Feb. 11 for paving Broadway: HILL PAVING CO., $135,193 (awarded contract); Barber Asphalt Paving Co., $137,180; Cleveland Trinidad Co., $145,623.

CLINTON, OKLA.—Bids will be received by C. G. Welch, Mayor, until March 15, for 2,480 lin. ft. of concrete curb, 15,230 sq. ft. of concrete gutter, 24,505 sq. yds. of vitrified block paving, with 5-in. concrete base and asphalt fill, and 5,880 cu. yds. of earth. J. L. O'Hearn, of Clinton, is City Engr.; C. C. Smith, City Clk.

DENVER, COLO.—The Board of Public Works has awarded the contract for building the municipal asphalt plant to HETHERINGTON & BERNER, 19 West South St., Indianapolis, Ind. This firm's bid was $17,150 to construct the plant complete and turn it over to the city within 90 days.

The contract for surfacing the streets in District No. 4 has been awarded to J. FRED ROBERTS, at $29,085.

OTHELLO, WASH.—See item under Light and Power Plants.

MONTESANO, WASH.—See item under Bridges.

OLYMPIA, WASH.—Bids will be received until March 8 by H. W. Bowlby, State Highway Comr., Olympia, for grading, curbing, bridging and macadamizing State Aid Road No. 65 in King County.

SANTA ANA, CAL.—HENINGER BROS. have been awarded a contract for sidewalk construction on South Birch St.

LEWISTON, IDAHO.—The City Council has awarded the contract for paving Main St. to WARREN CONSTRUCTION CO. for $42,465 and for curbs and gutters to ENOCH & MORREY for $10,525.

MANUFACTURING PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

MALDEN, MASS.—The Converse Independent Rubber Co., of Malden, has decided to issue 1,500 shares additional of preferred stock at $100 each, the proceeds to be used to enlarge the present plant on Pearl St., Malden.

NEW BEDFORD, MASS.—A corporation, organized by the promoters of the New Bedford Cotton Mill, with Abbett P. Smith at its head, will build a mill to the west of the New Bedford mill, near the railroad track. The plans call for a larger plant than the New Bedford mill. There will be twelve boilers.

It is reported that the Glennon Mill with which Thomas F. Glennon is to be connected, will be built on Hastings Wharf. The company, it is stated, is to be capitalized at $1,200,000, which would mean a 60-000-spindle mill.

FORT WADSWORTH (Rosebank post-office), N. Y.—Bids are asked until 11 a. m., March 18, by the Constructing Q. M., Fort Hamilton, Brooklyn, N. Y., for the construction and plumbing of brick extension to ordinance shop at Fort Wadsworth, N. Y.

BUFFALO, N. Y.—We are officially advised that the DUROLITHIC CO., 460 Ellicott Sq., Buffalo, N. Y., has been awarded contract for the complete erecting of a mill constructed factory building, 50 × 150 ft., for James Chalmers' Son. It will have concrete foundations, brick exterior, heavy wood floor construction, composition roof, large ventilators, iron stairs, etc.

LYNDHURST, N. J.—The Furman and Fecht Estates and V. E. Downer, have sold to the United Cork Co., of Hoboken, N. J., a factory site comprising about nine acres at Lyndhurst, with a frontage of more than 600 ft. on the Delaware, Lackawanna & Western R. R. Co. The property has similar frontages on Grant and New York Aves., and will be improved with a plant costing $250,000 and employing about 400 people.

BUTLER, PA.—The Velte Foundry & Machine Co., has awarded the contract for the erection of a machine shop, pattern shop, power house, office and foundry to J. S. CLARK, of Mars, Pa. The plant, when completed, will cost $200,000. Work will be rushed on the plant so operations can begin on the first of April. The new plant will have twice the capacity of the plant in Lawrenceville, which has been sold to the Heppensteel Foundry & Knife Co.

PHILADELJHIA, PA.—The Philadelphia Roll Mill & Machine Co. has had plans prepared for the erection of a $12,000 roll mill, 83.6 × 116.9 ft., at 23d St., and Washington Ave. Estimates have been invited.

An addition is to be built to the Disston Saw & File Works at Tacony. Plans for the building, which will cost $25,000, have been drawn by Sax & Abbott. It will be two stories high and will measure 179 × 44 ft.

The Quaker City Laundry Co., Ltd., has purchased from the estate of George S. Harris a lot measuring 110 × 82.6 ft., at the northwest corner of 48th and Ludlow Sts. It will be used as the site for a laundry building.

CANONSBURG, PA.—The Continental Can Co., of Syracuse, N. Y., has awarded contracts for the erection of a can factory at Canonsburg, Pa., adjoining the Standard Tin Plate plant. The annual consumption capacity will be 100,000 boxes of tin plate. The factory is to be completed in the early spring. A sanitary fruit can, used by fruit preserving factories, will be made.

BURLINGTON, N. C.—The Whitehead Hosiery Mills will build an addition and install machinery to double the present capacity. This company is operating 50 knitting machines, etc., by gas power.

HIGH POINT, N. C.—The Pickett Cotton Mill, of High Point, N. C., will be organized with R. L. Steele of Rockingham, N. C., Pres.; W. P. Pickett, Vice-Pres., and F. M. Pickett, Secy.-Treas., both of High Point. The company is capitalized at $250,000, and will build a mill of probably 12,000 spindles and 300 looms, operated by electricity from the High Point transmission of the Southern Power Co., of Charlotte, N. C.

HUNTSVILLE, ALA.—The Lowe Mfg. Co., of Huntsville, has awarded contract to T. C. THOMPSON & BRO., of Birmingham, Ala., for the erection of an addition. This building will be 80x100 ft. of brick, and will contain 300 looms, for which contract has been awarded. The company now has 25,600 ring spindles and 270 looms.

BOYLES (Birmingham post-office), ALA.—Plans have been started for the erection of shops at Boyles, on the outskirts of Birmingham, Ala., by the Louisville & Nashville R. R. Co. They will consist of nine separate buildings, including a power house, to be built on a 120-acre tract and will cost $655,000. The plant probably will be finished by early fall. W. H. Courtney is Ch. Engr., Louisville, Ky.

LOUISVILLE, KY.—Plans have been prepared for the construction of a building on Market St., between Eighth and Ninth Sts., by Udolpho Snead. The building will be eight stories high, 184 × 90 ft., and will be used for manufacturing purposes, space being rented with power furnished. The cost of the building is estimated at $300,000; the installation of elevators, generators and other power apparatus, will probably cost $100,000 additional. D. X. Murphy & Bro., 250 Fifth St., Louisville, Ky., are Archs.

CLOVERPORT, KY.—The Louisville, Henderson & St. Louis Ry. has announced that a new round-house will be built at the machine shops here, to replace the one burned recently. L. J. Irwin is Gen. Mgr., Louisville, Ky.

CARLISLE, KY.—The erection of a storage and redrying plant for the Burley Tobacco Society will begin here early in the spring. A plant with a capacity of 7,000,000 to 8,000,000 lbs. is planned.

STEUBENVILLE, OHIO.—It is stated that $200,000 will be spent by Follansbee Bros. before July, in making additions and improvements at their big plant in Follansbee. This was decided upon at a recent meeting of the Board of Directors held in Pittsburg. The work of making the additions will be started just as soon as the contract can be awarded. It is expected that the additions will be completed and in operation by the middle of July. Two additional sheet mills are to be erected, together with the necessary heating and annealing furnaces. These will be built in connection with the present sheet mills. The hot mill building will be extended to accommodate the new mills. A warehouse 70 ft. wide and 140 ft. long will be erected at the north end of the present plant. It will be constructed of brick. A power plant, the site for which has not been decided upon, will be built and will be equipped with a 500-KW. electric generator, to be driven by a low-pressure steam turbine. William Benfield is Gen. Mgr.

ELKHART, IND.—O. M. Foster, Master Mechanic of the Lake Shore & Michigan Southern Ry. at this point, has announced that the work of breaking ground for locomotive and car shops to cost $3,000,000 will be started immediately in this city.

GREENFIELD, IND.—Johnson & Conklin, of this city, will soon ask for bids for the erection of a joint business and factory building.

GREENWOOD, IND.—The Greenwood Elevator Co. will soon ask for bids to construct an elevator on the site of the building destroyed by fire.

INDIANAPOLIS, IND.—The Enterprise Foundry & Fence Co. will soon ask for bids for the erection and equipment of a foundry and manufacturing plant on Yandes St.

STINESVILLE, IND.—The U. S. Steel Corporation has ordered plans and specifications for the construction of a stone crushing plant and stone quarry at this city. The product will be shipped to Gary, the headquarters of the corporation.

DETROIT, MICH.—Albert Kahn, Arch., Trussed Concrete Bldg., is taking figures on a 1-story foundry building, 200 × 200 ft., for the Packard Motor Car Co., East Grand Boulevard and Belt Line R. R. S. D. Walden is Gen. Mgr. The building is to be of concrete construction.

The Detroit Radiator Co., 324 Jefferson Ave. W., is looking for a suitable site. It contemplates building a factory building in the spring. The architects have not been selected.

The Brisco Mfg. Co., Woodward and Baltimore Aves., Detroit, has secured the property adjoining its present plant and has selected Baxter & O'Dell, Archs., 1024 Hammond Bldg., Detroit, to prepare plans and specifications for a 1-story factory building. The Brisco company manufacture automobile parts. Frank Brisco is Pres.

Chittenden & Kotting, Archs., 1805 Ford Bldg., Detroit, have let the following contracts for a 5-story addition, 66 × 184 ft., for the Detroit Stove Works, E. G. Van Wie, Gen. Supt., 1320 Jefferson ave.: Masonry and structural iron work to LEONARD SCHOLL & CO., 298 Twelfth St., Detroit; carpentry to SCHMIDT-SISMAN & CO., 391 Beaufait St., Detroit.

DETROIT, MICH.—G. A. Mueller, Arch., 313 Ferguson Bldg., Detroit, is preparing plans and specifications for bottling works. The building will have two stories and basement, 80 × 40 ft., and will be built for the Voigt Brewing Co. E. C. P. Lansberg is Secy., 203 Grand Ave., Detroit.

The same architect is preparing plans and specifications for a 4-story storage and mill house, 58 × 55 ft., for the U. S. Frumentum Co., John B. Padberg, Secy., 39 Chene St., Detroit. Stock brick, Bedford cut stone, reinforced concrete, structural iron work and cement floors will be used.

The same architect has let contracts for bottling works, to have two stories and basement, 50 × 105 ft., for the Detroit Brewing Co., Chas, A. Martz, Secy., 490 Orleans St., Detroit. Gabrial reinforced-concrete work has been let to JOHN ZUNGA, 17 Hale St.; masonry to JOHN BOLLIN, 906 Bellevue Ave.; carpentry to LOUIS SCHMIDT, 4 Frontenac Boulevard; structural iron work to RUSSELL WHEEL & FOUNDRY CO., Joseph Campeau; plumbing to THOMAS BRUCKMAN & CO., 188 Catharine St.

DETROIT, MICH.—Varney, Winter & Varney, Archs., 58-62 Equity Bldg., Detroit, have let the following contracts for the Briggs Mfg. Co., for the third and fourth stories to be added to the present building, 362 × 86 ft., at Leuschner Ave. and G. T. R. R.: Structural iron work to RUSSELL WHEEL & FOUNDRY CO.; masonry and carpentry to GEORGE & CO., 708 Penobscot Bldg., Detroit; plumbing to DEANE, MOUAT & CO., 40-46 Champlain St., Detroit; steam heating to JOSEPH J. DOYLE & CO., 51-53 Bates St.

The same architects have let for the Long Mfg. Co., Cass St. and Amsterdam Ave., for the 2-story factory building, 320 × 60 ft.: Structural iron work to RUSSELL WHEEL & FOUNDRY CO.; plumbing to BEAN & DEVILLE, 1478 Woodward Ave., Detroit.

PARK FALLS, WIS.—The Miller Mfg. Co. will rebuild the crate factory recently destroyed by fire. Cost, $35,000. The architect is not yet selected.

MILWAUKEE, WIS.—The Gridley Dairy Co., Eighth St., near Grant Ave., has purchased a site at Brady St. and Farwell Ave. and intends to erect a 3-story solid brick branch plant, 60 × 180 ft. Probable cost, $50,000.

ST. LOUIS, MO.—The Model Bottling Machine Co., 2825 South Broadway, is planning to erect a factory on Forest Park Ave., near Spring St., to cost about $150,000. Edward Wagner is Pres.

JEFFERSON BARRACKS, MO.—Bids are asked until 11 a. m., March 10, by Capt. Stanley H. Ford, Q. M., for constructing an addition and improvements to a bakery building.

HOUSTON, TEX.—It has been announced by G. F. Cotter, Texarkana, Tex., that a wood preserving plant will be established in this city by the National Lumber & Creosote Co., which concern is now building a plant in Texarkana.

YUCAIPA, CAL.—F. Montigel, of Redlands, Cal., will establish an artificial stone plant at Yucaipa City. The factory and outbuildings are to be of concrete.

SAN PEDRO, CAL.—C. K. Melrose, Secy. of the Union Ice Co., San Francisco, Cal., announces the company will erect an ice plant here.

PHOENIX, ARIZ.—The Phoenix Street R. R. Co. will build a reinforced-concrete carbarn, it is stated. S. H. Mitchell, Supt. Estimated cost, $20,000.

HAMILTON, ONT.—The Tuckett Cigar Co. will concentrate all its cigar manufacturing plants at Hamilton, and a factory costing about $100,000 will be erected here.

The contract for the brickwork for the $1,-000,000 extension to the plant of the Hamilton Steel & Iron Co. has been awarded to GEORGE F. WEBB, Hamilton.

WINNIPEG, MAN.—Officials of the Imperial Steel & Wire Co., of Collingwood, Ont., will visit Winnipeg soon for the purpose of arranging to start work on the erection of a new wire factory here. The plant will have a capacity of 100 tons of wire daily, and 250 men will be employed. J. A. Currie, Toronto, is interested in the enterprise.

The management of the Vulcan Iron Works has purchased 20 acres of land on Notre Dame Ave., near the Dominion Bridge Co.'s plant. This summer the company will erect a blacksmith shop on the old site, to cost $30,000.

VANCOUVER, B. C.—The Western Steel Co. is preparing to locate in British Columbia a plant for constructing structural steel. The site has not been announced. James A. Moore is Pres., Irondale, Wash.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

LEVEE.—Dayton, Ohio.—The Platt Iron Works is having plans prepared for a levee on the north side of Mad River.

GRANDSTAND. — Greenville, Ohio. — The Darke County Fair Association will build a concrete grandstand to cost $18,000.

DITCHES.—Bluffton, Ind.—Bids will be received by Harvey B. Sark, Drainage Comr. for Wells County, until March 26 for the construction of two ditches.

REVETMENT.—Fort Screven, Ga.—Bids will be received by Lieut. R. Donovan, Constr. Q. M., U. S. A., until March 23, for constructing a riprap revetment in the seawall.

WHARF.—Angel Island, Cal.—Bids will be received until March 10 by Saml. V. Ham, Constr. Q. M., U. S. A., Fort McDowell, for constructing an addition to wharf at Angel Island.

*DREDGING.—New York, N. Y.—Bids will be received until noon, April 1, by Col. Wm. T. Rossell, Corps Engrs., U. S. A., Army Bldg., for dredging in Passaic River and Shrewsbury River, N. J.

ROCK WORK.—Lockport, N. Y.—Bids will be received by the United Engineering & Contracting Co., 17 West 42d St., New York, for 150,000 cu. yds. of rock work on the State Barge Canal at Lockport.

*CEMENT.—Duluth, Minn.—Bids are asked by Lt.-Col. Graham D. Fitch, Corps Engrs., Duluth, until noon, March 24, for furnishing 10,000 bbls. of American Portland cement for Superior Entry, Wis.

*DREDGING.—New York, N. Y.—Bids will be received by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg, until noon, March 29, for dredging in Patchogue River, Great South Bay, N. Y., and Browns Creek, N. Y.

SNAGBOAT.—Wheeling, W. Va.—Bids are asked by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., Wheeling, until 11 a. m., March 30, for building a quarter boat and a hull for snagboat for the Kanawha River improvement.

LEVEE.—Memphis, Tenn.—Bids will be received until March 18 by Maj. M. L. Walker, Corps Engrs., U. S. A. Mississippi River Comrs., First and Second Dists., Custom House, Memphis, for levee work in White River Levee Dist.

CRIBWORK, ETC.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., March 10, for rebuilding cribwork and filling in bank on the easterly side of the Harlem River, in Macombs Dam Park, Boro. of the Bronx.

TELEGRAPH EQUIPMENT.—Regina, Sask.—Bids will be received at the office of S. P. Porter, Deputy Minister of Railways & Telephones, Regina, Saskatchewan, until noon, March 10, for insulators, pins, cross-arms and pole line hardware.

PILES, ETC.—New Orleans, La.—Bids will be received until March 4 by Lieut.-Col. Lansing, H. Beach, Corps Engrs., U. S. A., New Orleans, for piles and walling timbers, on the river bank or wharves in Southwest Pass, Mississippi River.

BOAT.—North Vancouver, B. C.—The WALLACE SHIPYARDS, LTD., North Vancouver, has been awarded contract for construction of new ferry boat for North Vancouver City service, for delivery Aug. 1, 1910, double engines, at $117,927.

CONDUIT.—Salt Lake City, Utah.—The MORAN CONTRACTING CO., of Salt Lake City, has contract, at $6,089, for a reinforced concrete conduit in Parley's Creek at Twelfth South St. G. F. McGonagle is City Engr.

SHELTER.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., March 10, for furnishing all the labor and materials for the erection and completion of a shelter in the Botanical Garden in Bronx Park, in the City of New York.

WAGON SCALES.—New York, N. Y.—Bids are asked by R. Waldo, Fire Comr., until 10.30 a. m., March 12, for furnishing two platform wagon scales in each of the Boroughs of Manhattan, Brooklyn, and the Bronx, and one each in Queens and Richmond.

DERRICK BOATS.—Wheeling, W. Va.—Bids are asked by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., until 11 a. m., March 24, for furnishing and delivering three wooden hull maneuver boats with derricks, engines, etc., for dams Nos. 8, 11 and 26, Ohio River.

STEEL, BOLTS, ETC.—Wheeling, W. Va.—Bids are asked by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., until 11 a. m., March 14, for furnishing and delivering structural steel, forgings, castings, bolts, etc., for bear-trap-weir foundation and engine, Dam No. 26, Ohio River.

DRAINAGE.—Woodstock, Ill.—Bids will be received until March 4 by the Commissioners of Rush Creek Drainage District, care of M. A. Carmack, at Woodstock, for constructing a system of drainage for the Rush Creek Drainage Dist., town of Dunham, requiring about 58,000 yds. of open ditch and 24,000 ft. of tile drains.

TRAP ROCK.—New York, N. Y.—Bids were received as follows on Feb. 24 by the President of the Borough of the Bronx for furnishing and delivering broken trap rock stone and screenings: Jacob E. Conklin, 135 Front St., New York, $49,500; Clinton Point Stone Co., 115 Broadway, $55,500; Manhattan Trap Rock Co., 30 Church St., $56,700.

DITCH.—Madison, Minn.—Bids were received by A. G. Shogren, County Audr., on Feb. 9, and the contract for constructing Judicial Ditch No. 3 has been awarded to G. E. GILBERTSON, of St. James, for $17,-011. The contract for constructing a tile and open ditch has been awarded to MADISON DITCHING CO., of Madison, for $28,-000.

PNEUMATIC TUBE SERVICE. — New York, N. Y.—Bids were received as follows by James Knox Taylor, Superv. Arch. of the Treasury Depart., Washington, D. C., for the construction of a double pneumatic tube service between the U. S. Custom House and the Appraisers' Warehouse, New York: New York Pneumatic Service Co., 52 Broadway, New York, $173,250.

VESSEL.—Washington, D. C.—Bids were received as follows by the Light House Board on Feb. 24, for the construction of a light-house tender: John H. Dialogue & Sons, Camden, N. J., $83,200, delivered at Camden; Staten Island Ship Building Co., Staten Island, N. Y., $74,500, delivered at Staten Island; Racine Boat Co., Muskegon, Mich., $68,500, delivered at Muskegon; $68,-900, delivered at St. Joe.

DREDGING, EXCAVATION.—Chicago, Ill.—Bids were received as follows by Maj. Thos. H. Rees, Corps Engrs., U. S. A., Chicago, on Feb. 23, for dredging and rock excavation in Chicago River: Buffalo Dredging Co., Buffalo, N. Y., $40,700; Standard Construction Co., Chicago, $32,630; Fitz Simons & Connell Co., Chicago, $32,900; Great Lakes Dredge & Dock Co., Chicago, $27,100 (recommended for acceptance).

TRACK ELEVATION.—Fort Wayne, Ind.—Bids will be received by the Board of Public Works until 2 p. m., March 16, for the construction of the city's portion of the work to be done under railroad track elevation resolutions Nos. 1 and 2, in accordance with the official plans and specifications. Separate bids will be required on the work to be done at Calhoun St., Fairfield Ave. and Broadway. Henry W. Becker, Clerk.

FILL-IN PRIVILEGE.—New York, N. Y.—Bids will be received until noon, March 7, by the Department of Docks and Ferries, for the right to dump and fill-in behind the bulkhead wall now built, or to be built, on the Gowanus section, between 32d and 36th Sts., South Brooklyn. Also, at same time, bids for the right to dump and fill-in behind the bulkhead wall now built, or to be built, on the Gowanus section, between 28th and 31st Sts., South Brooklyn.

REPAIRS TO LIFE SAVING STATION.—Kenosha, Wis.—Bids were received as follows on Feb. 18 by the Superintendent of the Life-saving Service, Washington, D. C., for making repairs and improvements to the Kenosha Life-saving Station, as follows: F. E. Foulke, Kenosha, Wis., $7,990; time, June 1, 1910. Gottlieb Schaefer, Kenosha, Wis., $8,704; time, June 30, 1910. August Tiedemann, Ludington, Mich., $6,377; July 1, 1910. J. C. Jensen, Racine, Wis., $8,950; time, Sept. 1, 1910.

GUIDE WALLS.—Wheeling, W. Va.—Bids were received as follows by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., on Feb. 24, for constructing pile and crib guide walls for locks Nos. 4-11, Kanawha River: G. & A. Mfg. Co., 26 Cortlandt St., New York, $45,348; E. L. Foley, St. Albans, W. Va., $33,062; Ohio River Contract Co., Evansville, Ind., $31,598; M. F. Leonard, oJhn V. Dale, C. R. Niday, Gallipolis, Ohio, $29,613; Pfaff & Smith, Charleston, W. Va., $33,822; Clifton Bros., Zanesville, Ohio, $25,922.

LOCK SUB-CONTRACT. — Birmingham, Ala.—Frank Nelson, of Birmingham, Ala., and P. H. O'Brien, of Bessemer, Ala., it is announced, will let contract for the completion of work on Lock No. 3, Tombigbee River, Ala., which was originally awarded them by the U. S. Government on Dec. 14, 1907. The total amount of the contract is $350,000, and the amount of work done is about $100,000. There remain 15,000 cu. yds. of concrete to be placed on this lock, 20,000 cu. yds. of stone filling; for crib dam, 1,000 cu. yds. of gravel filling; 3,000 yds. of riprap and 1,100 M. ft. timber to be used in cribs, dams, etc.

LIGHT VESSEL.—St. Joseph, Mich.—Bids were received by the Lighthouse Board, Washington, on Feb. 24, for furnishing material and labor necessary for the construction, equipment and delivery of the second-class, single screw, steel steam light vessel No. 95, to the light house inspector at the Light House Depot, St. Joseph, Mich.: Racine Boat Mfg. Co., Muskegon, Mich., $68,-500, delivered at Muskegon, Mich.; Racine Boat Mfg. Co., Muskegon, Mich., $68,900, delivered at St. Joseph Light-House Depot, Mich.; Staten Island Shipbuilding Co., Port Richmond, N. Y., $74,500, delivered at Port Richmond, N. Y.; John H. Dialogue & Son, Camden, N. J., $83,200, delivered at Camden, N. J.

*PIER IMPROVEMENTS.—Albany, N. Y.—The Board of Contract and Supply has awarded to JOHN DYER, JR., Albany, the contract for constructing concrete docks along the State St. pier, surfacing the same with asphalt, and otherwise i[illegible]ving the structure. The contract price is [illegible]166. Bids were received as follows: (A) [illegible]piles are cut off at mean low water; (B) [illegible]piles are cut off one foot above mean low [illegible]er: Engineer's estimate, (A) $113,038; [illegible] $109,-806. JOHN DYER, JR., Albany, [illegible]A) $96,-166; (B) $94,741. Collins Br[illegible] Albany, (A) $104,473; (B) $99,883. Os[illegible] D. Guilfoil, New York, (A) $106,631; [illegible] $101,564. T. H. Dumary & Co., Albany, [illegible] 106,705; (B) $104,010. Northeastern Cons[illegible]tion Co., New York, (A) $110,192; (B[illegible] $109,270. Lord Construction Co., New York, [illegible]) $120,-349; (B) $119,092. McHarg-[illegible]on Co., New York, (A) $124,111; (B) $1[illegible]46. The Elmore & Hamilton Constructi[illegible]Co., Albany, (A) $124,994; (B) $123,[illegible] Morris Kantrowitz, Albany, (A) $127[illegible]4; (B) $124,841. M. J. Dady, Brooklyn, [illegible]Y., (A) $142,340; (B) $139,355. E. V. [illegible]mpkins, New York, (A) $145,785; (B[illegible]145,6[illegible]8. John M. Haller, Albany, (A) $17[illegible]5; (B) $172,647. Andrew Kimm, Schen[illegible]dy, N. Y., (A) $208,486; (B) $208,671. W[illegible]ter Mellius is City Engr.

CONTRACT PRICES.

(* *denotes that this work is advertised in Engineering News.*)

*HEADWORKS AND TUNNEL.—Tacoma, Wash.—Bids were received Feb. 21, by H. T. McGregor, Comr. Pub. Wks., for constructing the headworks and tunnel for a hydroelectric power plant on the Nisqu[illegible] River. The bidders were: (A) WRIGH[illegible] SWEENEY & CUMMINGS (awarded [illegible]ntract); (B) Hans Pederson & Olaf Olson; [illegible] B. W. Bibler, all of Tacoma, Wash. The itemized bids are as follows:

	A	B	C
Headworks:			
31 acres clearing	$191.50	$95.00	$100.00
4,000 cu. yds. earth excavating	.96	.28	.50
21,700 cu. yds. rock excavation	1.75	1.45	2.00
120 sq. yds. riprap	3.45	1.75	2.00
19,470 cu. yds. concrete	5.75	7.50	8.50
5,000 sq. yds. cement plaster	.35	.50	.30
19,000 lbs. concrete reinforcing	.0465	.05	.06
110,000 lbs. steel and cast iron	.057	.05	.06
7 washout and regulating gates	3,500.00	4,500.00	3,750.00
3 gate houses	2,667.00	1,500.00	1,800.00
Gate keeper's house, lump sum	5,500.00	3,500.00	3,500.00
Hand railing and boom, lump sum	3,550.00	500.00	2,250.00
Transmission line, lump sum	4,725.00	3,600.00	5,000.00
Transformers and other electrical equipment, lump sum	4,500.00	6,516.00	.....
Tunnel:			
40,000 cu. yds. excavating	7.70	8.75	6.40
100,000 ft. B. M. timbering	32.00	15.00	30.00
10,000 cu. yds. concrete	11.23	8.00	11.00
28,000 sq. yds. cement plaster	.42	.40	.40
Totals	$655,225.50	$683,691.00	$666,235.00

LIGHTING AND WATER SUPPLY.—Erie, Kan.—Bids were received Feb. 17, for the construction of an electric lighting plant, water-works and sewers. Burns & McDonald, Scarritt Bldg., Kansas City, Mo., are Engrs. The contract for the construction of the power house was awarded to FRED M. CLARK, Savanna, Mo., at $4,700. The contract for furnishing hydrants and valves was awarded to FRED M. CLARK, Savanna, Mo., at the following prices: 36, 4-in. hydrants, $24; 15, 4-in. gate valves, $6.50; 2 6-in. gate valves, $10.75; 3 8-in. gate valves, $16; 24 valve boxes, $3. THE PENNSYLVANIA BRIDGE CO., Dallas, Tex., was awarded the contract for the erection, exclusive of foundations, of a 70,000-gal. tower and tank 120 ft. high. The electrical equiment contract, delivered f. o. b. Erie, consisting of a 75-KW. generator and exciter, a switchboard and 17 transformers was awarded to FRED M. CLARK, Savanna, Mo., at $3,000. He also secured the contract for furnishing a 125-HP. high-speed engine at $1,250 and 2 feed pumps, including valves and fittings, 300-gal. per. min. horizontal pumps, 2 boiler at $1,400. The contract for the erection, complete, of a 42-in. chimney 80 ft. high, was awarded to the WIEDERHOLT CONSTRUCTION CO., Kansas City, Mo., at $1,200. The bidders for the construction work were: (A) Kansas City Plumbing & Supply Co., Iola, Kan.; (B) Lund & Cunyan, Blackwell, Okla.; (C) Squire Electric Co., Kansas City, Mo.; (D) FRED M. CLARK, Savanna, Mo. (awarded contract); (E) Freeborn Engineering Co., Kansas City, Mo.; (F) O'Bannon & Foster, Blackwell, Okla. The items are as follows:

	A	B	C	D	E	F
2,950 lin. ft. 2-in. galv. pipe, furnishing and laying	$0.28	$0.21	$0.22	$0.28	$0.29	$0.30
12,550 lin. ft. 4-in. cast-iron pipe, hauling and laying	.16	.14	.17	.15	.14¼	.16
1,160 lin. ft. 6-in. cast-iron pipe, hauling and laying	.20½	.16	.19	.17	.16½	.18
2,640 lin. ft. 8-in. cast-iron pipe, hauling and laying	.23	.19	.22	.20	.22¼	.22
36 hydrants, hauling and setting	2.00	3.00	3.00	5.00	1.50	2.50
4 gate valves, 2-in., hauling and setting	.75	.50	1.00	1.00	.60	1.00
15 gate valves, 4-in., hauling and setting	1.25	1.00	1.00	1.00	.60	1.80
2 gate valves, 6-in., hauling and setting	1.25	1.50	1.00	1.00	.60	2.56
3 gate valves, 8-in., hauling and setting	1.25	2.00	1.00	2.00	.70	3.00
55 poles, 25 ft., furnishing and setting	3.30	3.50	4.50	4.00	2.73	4.25
250 poles 30-ft., furnishing and setting	4.36	5.00	6.00	5.00	3.97	4.80
480 cross arms, 4-pin, furnishing	.70	.80	.75	1.00	1.06	.70
90 guy anchors, furnishing	2.40	4.00	3.00	3.00	2.70	2.25
65 lightning arresters, furnishing and setting	5.57	8.00	5.00	10.00	3.85	6.00
2 boilers, 72 in. × 18 ft., furnishing and setting	,260.00	3,400.00	3,200.00	4,500.00	3,417.00	3,600.00
1 200-HP. heater, furnishing and setting	328.00	240.00	200.00	50.00	250.00	400.00
Furnishing and installing steam piping	1,500.00	600.00	1,400.00	600.00	1,175.00	1,800.00
Installing electrical machinery, lump sum	238.50	350.00	200.00	200.00	330.00	500.00
Installing pumping machinery, lump sum	325.00	270.00	300.00	200.00	327.00	200.00
Pump pit well, lump sum	2,325.90	3,000.00	3,000.00	1,750.00	2,500.00	3,000.00
Flooring, lump sum	350.00	185.00	500.00	300.00	640.00	800.00
700 lin. ft. 5 in. × 16 in. curb	.35	.60	.25	.30	.36	.80
450 sq. yds. 4-in. rock macadam	1.25	2.05	1.00	.75	.58	1.90
Grading, lump sum	50.00	103.00	200.00	100.00	110.0	100.00
Totals	$17,935	$20,617	$18,859	$17,419	$17,963	$20,467

PAVING AND SEWER MATERIALS—The Minneapolis City Council received the following proposals, Feb. 25: For 150,000 sq. yds. 4-in. creosoted wood paving blocks, per sq. yd.: Ayer & Lord Tie Co., Chicago, Ill., yellow pine, $1.90; Kettle River Quarries Co., Minneapolis, Norway or tamarac, $1.39½, yellow pine, $1.56; U. S. Wood Preserving Co., New York, Norway or tamarac, $1.38, yellow pine, $1.58; Republic Creosoting Co., Minneapolis, Norway or tamarac, $1.32¾, yellow pine, $1.55. For furnishing 3,000 cu. yds. crushed granite f. o. b. per cu. yd.: Minnesota Flint Rock Co., New Ulm, Minn., $2.22; New Ulm Stone Co., New Ulm, Minn., $2.19; Wisconsin Granite Co., Chicago, Ill., $2.15; Western Granite Co., St. Cloud, Minn., $1.98.

The Purington Paving Brick Co., Galesburg, Ill., offered to furnish 40,000 sq. yds. of brick paving blocks, f. o. b., for $0.998 per sq. yd. The Northwestern Lime Co. agreed to furnish, in two lots, 50,000 bbls. of Portland cement for $1.10. The Kettle River Quarries Co., Minneapolis, bid $1.54 and $1.74 for 40,000 sq. yds. of sandstone paving blocks, the higher price being for smooth tops. Bids for 4,000 lin. ft. of granite curb f. o. b. were as follows: Robt. Graham, St. Cloud, Minn., straight, 70 cts; curved, 85 cts.; N. W. Granite Co., St. Cloud, Minn., straight, 65 cts.; curved, 75 cts. The Kettle River Quarries Co. bid as follows, for furnishing 4,000 lin. ft. of sandstone curb f. o. b.: 5 × 18-in., straight, 53 cts.; curved, 63 cts. 5 × 20-in., straight, 55 cts.; curved 65 cts.; 6 × 20-in., straight, 65 cts.; curved, 75 cts. The following bids were received for 200 tons of special castings, the price being for tons of 2,000 lbs.: N. W. Foundry, Minneapolis, $41.50; Hauser Brothers, Minneapolis, $32.40; Standard Foundry Co., Minneapolis, $40.50; Crown Iron Works, Minneapolis, $43.00; Menzel & Jeffery, Minneapolis, $42.70.

SEWER SYSTEM.—Washington, N. J.—The following bids were received on Feb. 14 by A. [illegible] Craft, Boro. Clk., for constructing about eight miles of vitrified pipe sewer from 8 to 18-in., and a sewage disposal works Clyde Potts is Engr., 30 Church St., New York: (A) UNION BUILDING & CONSTRUCTION CO., Passaic, N. J. (contract awarded); (B) Clarke & Co., Morristown, N. J.; (C) Filbert Paving & Construction Co., Philadelphia, Pa.; (D) Bond & McNally, Weehawken, N. J.; (E) D'Amato & Stifanelli, Newark, N. J.; C. S. Lambie Co., Pittsburg, Pa.; (G) [illegible] M. Mullen, Bayonne, N. J.; (H) Jobson-Hooker Co., New York; (I) M. P. McGrath, Easton, Pa.; (J) Merrill-Ruckgaber Co., New York; J. W. Heller, Newark, N. J.; (L) Frank Puglia, Paterson, N. J.; (M) J. McNabb, Bound Brook, N. J.; (N) J. B. O'Rourke & Co., Boston, Mass.; (O) E. L. Sawyer & Co., New York; (P) Harrison Construction Co., Newark, N. J.; (Q) Louis Jacques, Elizabeth, N. J.; (R) S. W. Chiles, Bethlehem, Pa.; (S) United Paving Co., Atlantic City, N. J.; (T) Fernon & Brown, New York; (U) Charles Ippolito, Orange, N. J.:

	A	B	C	D	E	F	G	H	I	J	K
780 ft. 8-in. tile pipe, cut 6 ft. and under	$0.38	$0.45	$0.36	$0.57½	$0.55	$0.45	$0.43	$0.53	$0.49	$0.47	$0.48
20,491 ft. 8-in. tile pipe, cut 6 to 8 ft.	.43	.50	.41	.57½	.58	.60	.49½	.57	.55	.56	.57
5,800 ft. 8-in. tile pipe, cut 8 to 10 ft.	.60	.60	.56	.57½	.72	.75	.60	.71	.66	.73	.72
685 ft. 8-in. tile pipe, cut 10 to 12 ft.	.80	.80	.76	.57½	1.00	1.00	.80	.85	.81	1.07	.89
200 ft. 8-in. tile pipe, cut 12 to 14 ft.	1.25	.95	1.06	.57½	1.21	1.20	1.10	1.05	.101	1.20	.98
100 ft. 8-in. tile pipe, cut 14 to 16 ft.	1.65	1.20	1.46	.57½	1.50	1.45	1.44	1.20	1.22	1.46	1.10
1,960 ft. 10-in. tile pipe, cut 6 ft. and under	.45	.55	.48	.75	.66	.55	.58	.63	.61	.60	.63
1,010 ft. 10-in. tile pipe, cut 6 to 8 ft.	.52	.60	.55	.75	.68	.70	.68	.69	.71	.69	.76
1,030 ft. 10-in. tile pipe, cut 8 to 10 ft.	.69	.70	.68	.75	.79	.85	.82	.83	.84	.86	.87
53 ft. 10-in. tile pipe, cut 10 to 12 ft.	.90	.90	.95	.75	1.10	1.20	1.07	1.02	.97	1.33	1.00
50 ft. 10-in. tile pipe, cut 12 to 14 ft.	1.17	1.05	1.20	.75	1.29	1.30	1.35	1.15	1.19	1.46	1.15
50 ft. 10-in. tile pipe, cut 14 to 16 ft.	1.75	1.30	1.60	.75	1.65	1.55	1.50	1.30	1,43	1.67	1.30
700 ft. 12-in. tile pipe, cut 6 ft. and under	.62	.65	.57	.90	.73	.60	.68	.76	.75	.73	.75
678 ft. 12-in. tile pipe, cut 6 to 8 ft.	.72	.70	.67	.90	.74	.80	.78	.84	.83	.85	.91
65 ft. 12-in. tile pipe, cut 8 to 10 ft.	.92	.80	.77	.90	1.06	.95	.92	1.00	.99	1.07	1.06
50 ft. 12-in. tile pipe, cut 10 to 12 ft.	1.00	1.00	1.07	.90	1.18	1.15	1.18	1.20	1.13	1.37	1.22
50 ft. 12 in. tile pipe, cut 12 to 14 ft.	1.38	1.15	1.32	.90	1.38	1.35	1.50	1.40	1.36	1.53	1.40
50 ft. 12-in. tile pipe, cut 14 to 16 ft.	1.70	1.40	1.72	.90	1.84	1.60	1.60	1.55	1.61	1.78	1.58
1,750 ft. 15-in. tile pipe, cut 6 ft. and under	.76	.88	.78	1.10	.96	.85	.83	.97	.95	.77	1.00
200 ft. 15-in. tile pipe, cut 6 to 8 ft.	.85	.93	.88	1.10	1.01	1.05	.83	1.05	1.06	.94	1.21
100 ft. 15-in. tile pipe, cut 8 to 10 ft.	1.00	1.03	.98	1.10	1.21	1.20	1.15	1.16	1.23	1.17	1.40
50 ft. 15-in. tile pipe, cut 10 to 12 ft.	1.20	1.23	1.28	1.10	1.37	1.35	1.35	1.40	1.43	1.46	1.60
50 ft. 15-in. tile pipe, cut 12 to 14 ft.	1.80	1.38	1.53	1.10	1.57	1.55	1.70	1.60	1.66	1.69	1.80
50 ft. 15-in. tile pipe, cut 14 to 16 ft.	2.50	1.63	1.93	1.10	2.03	1.80	2.00	1.70	1.96	1.93	2.00
2,100 ft. 18-in. tile pipe, cut 6 ft. and under	1.00	1.11	.97	1.25	1.16	1.10	1.10	1.22	1.19	1.00	1.25
200 ft. 18-in. tile pipe, cut 6 to 8 ft.	1.10	1.16	1.07	1.25	1.38	1.30	1.26	1.28	1.27	1.14	1.40
100 ft. 18-in. tile pipe, cut 8 to 10 ft.	1.25	1.26	1.17	1.25	1.48	1.60	1.54	1.50	1.47	1.40	1.60
100 ft. 18-in. tile pipe, cut 10 to 12 ft.	1.50	1.46	1.47	1.25	1.66	1.65	1.81	1.70	1.69	1.73	1.85
50 ft. 18-in. tile pipe, cut 12 to 14 ft.	1.75	1.61	1.72	1.25	1.93	1.85	2.20	1.40	1.97	1.89	2.05
50 ft. 18-in. tile pipe, cut 14 to 16 ft.	2.50	1.86	2.12	1.25	2.58	2.10	2.58	2.20	2.27	2.26	2.25
125 manholes, with water connections, 10 ft. and under	42.00	30.00	50.00	35.00	45.00	40.00	42.45	46.00	56.60	40.00	38.00
Price per verticle ft. for each ft. over 10 ft.	4.00	3.00	3.00	4.60	5.00	5.00	5.00	4.25	4.35	2.60	4.00
C.-i. flaps for flushing manholes	17.50	10.00	6.00	20.00	18.00	10.00	25.00	7.00	21.00	6.00	20.00
3 flush tanks, complete	95.00	75.00	100.00	100.00	75.00	100.00	80.00	75.00	80.50	67.00	50.00
20 lamp holes	10.00	8.00	10.00	15.00	7.00	8.00	8.00	8.50	7.65	9.30	15.00
Spruce lumber, per M. ft.	39.00	40.00	50.00	75.00	35.00	50.00	60.00	45.00	33.00	40.00	50.00
Lumber left in place	39.00	30.00	43.00	30.00	28.00	20.00	25.00	36.00	29.00	33.30	40.00
C.-i. water pipe, in place	65.00	48.00	40.00	40.00	50.00	50.00	44.00	50.00	57.00	53.00	110.00
Rock excavation, per cu. yd.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
500 cu. yds. concrete placed around pipe	7.00	7.50	6.50	6.50	5.00	8.00	6.00	8.00	4.50	9.30	7.50
100 sq. yds. riprap	.50	2.75	.50	.50	1.70	1.00	.30	1.15	1.50	1.33	.20
Totals	$50,229	$52,600	$54,901	$55,843	$57,198	$56,793	$57,939	$57,964	$58,265	$58,266	$58,782

	L	M	N	O	P	Q	R	S	T	U
780 ft. 8-in. tile pipe, cut 6 ft. and under	$0.60	$0.46½	$0.67	$0.49	$0.50	$0.60	$0.52	$0.376	$0.66	$0.53
20,491 ft. 8-in. tile pipe, cut 6 to 8 ft.	.64	.60	.78	.59	.60	.70	.62	.516	.79	.65
5,800 ft. 8-in. tile pipe, cut 8 to 10 ft.	.70	.80	.90	.81	.75	.75	.74	.76	.91	.73
685 ft. 8-in. tile pipe, cut 10 to 12 ft.	1.00	.87	1.20	1.01	.90	.95	.86	1.00	1.14	.90
200 ft. 8-in. tile pipe, cut 12 to 14 ft.	1.10	1.10	1.50	1.19	1.15	1.00	1.05	1.15	1.25	1.15
100 ft. 8-in. tile pipe, cut 14 to 16 ft.	1.40	1.18	1.75	1.30	1.40	1.10	1.25	1.728	1.55	1.35
1,960 ft. 10-in. tile pipe, cut 6 ft. and under	.68	.59	.90	.62	.55	.65	.65	.648	.68	.59
1,010 ft. 10-in. tile pipe, cut 6 to 8 ft.	.70	.83	.90	.75	.65	.78	.70	.787	.86	.69
1,030 ft. 10-in. tile pipe, cut 8 to 10 ft.	.80	.96½	1.25	.95	.85	.90	.82	.938	1.00	.85
53 ft. 10-in. tile pipe, cut 10 to 12 ft.	1.00	1.05	1.40	1.19	1.10	1.02	1.10	1.083	1.20	1.05
50 ft. 10-in. tile pipe, cut 12 to 14 ft.	1.40	1.30	1.75	1.33	1.50	1.15	1.25	1.30	1.32	1.50
50 ft. 10-in. tile pipe, cut 14 to 16 ft.	1.50	1.48	2.20	1.45	2.00	1.20	1.45	1.87	1.65	1.75
700 ft. 12-in. tile pipe, cut 6 ft. and under	.75	.74	.90	.75	.60	.75	.78	.785	.83	.80
678 ft. 12-in. tile pipe, cut 6 to 8 ft.	.85	.84	.90	.90	.80	.87	.87	.916	.93	.88
65 ft. 12-in. tile pipe, cut 8 to 10 ft.	.95	.94	1.35	1.06	.85	.95	1.10	1.016	1.10	.96
50 ft. 12-in. tile pipe, cut 10 to 12 ft.	1.10	1.13	1.60	1.30	1.25	1.07	1.25	1.238	1.33	1.35
50 ft. 12 in. tile pipe, cut 12 to 14 ft.	1.40	1.38	2.00	1.53	1.75	1.17	1.45	1.446	1.48	1.60
50 ft. 12-in. tile pipe, cut 14 to 16 ft.	1.50	1.56	2.30	1.74	2.25	1.25	1.65	1.974	1.75	1.95
1,750 ft. 15-in. tile pipe, cut 6 ft. and under	.95	.88	1.00	.98	.75	1.00	1.10	1.025	.95	1.00
200 ft. 15-in. tile pipe, cut 6 to 8 ft.	1.10	1.02	1.45	1.09	.90	1.15	1.15	1.087	1.05	1.10
100 ft. 15-in. tile pipe, cut 8 to 10 ft.	1.20	1.10	1.55	1.30	1.10	1.27	1.40	1.227	1.21	1.35
50 ft. 15-in. tile pipe, cut 10 to 12 ft.	1.40	1.29	1.75	1.40	1.40	1.35	1.55	1.43	1.45	1.75
50 ft. 15-in. tile pipe, cut 12 to 14 ft.	1.60	1.58	2.10	1.61	1.85	1.42	1.80	1.569	1.60	1.95
50 ft. 15-in. tile pipe, cut 14 to 16 ft.	2.00	1.71	2.40	1.86	2.35	1.50	2.10	2.166	1.78	2.00
2,100 ft. 18-in. tile pipe, cut 6 ft. and under	1.20	1.15	1.20	1.24	.90	1.25	1.25	1.232	.93	1.25
200 ft. 18-in. tile pipe, cut 6 to 8 ft.	1.35	1.25	1.40	1.33	1.00	1.40	1.30	1.527	1.19	1.40
100 ft. 18-in. tile pipe, cut 8 to 10 ft.	1.50	1.50	1.60	1.50	1.25	1.50	1.60	1.632	1.32	1.45
100 ft. 18-in. tile pipe, cut 10 to 12 ft.	1.65	1.68	1.85	1.63	1.50	1.60	1.80	1.818	1.55	1.75
50 ft. 18-in. tile pipe, cut 12 to 14 ft.	1.80	1.75	2.30	1.85	2.00	1.70	2.05	2.08	1.78	1.95
50 ft. 18-in. tile pipe, cut 14 to 16 ft.	2.00	1.96	2.50	2.20	2.50	1.80	2.30	2.41	1.96	2.10
125 manholes, with water connections, 10 ft. and under	40.00	45.00	50.00	55.00	35.00	40.00	60.00	36.66	59.00	40.00
Price per verticle ft. for each ft. over 10 ft.	4.00	3.00	6.00	5.10	3.50	4.00	7.50	5.40	5.00	3.00
C.-i. flaps for flushing manholes	20.00	7.00	7.50	7.50	8.00	10.00	6.00	25.00	7.50	10.00
3 flush tanks, complete	75.00	63.00	75.00	86.00	70.00	90.00	90.00	72.66	60.00	85.00
20 lamp holes	15.00	6.00	15.00	7.00	10.00	10.00	12.50	12.00	7.50	10.00
Spruce lumber, per M. ft.	30.00	35.00	35.00	50.00	40.00	85.00	60.00	42.00	31.00	35.00
Lumber left in place	30.00	35.00	20.00	25.00	35.00	35.00	45.00	32.40	26.00	30.00
C.-i. water pipe, in place	100.00	46.20	40.00	36.00	40.00	45.00	60.00	44.40	40.00	35.00
Rock excavation, per cu. yd.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
500 cu. yds. concrete placed around pipe	5.00	6.50	6.50	8.00	7.00	6.50	7.00	5.46	6.00	6.50
100 sq. yds. riprap	.20	.60	2.25	1.50	1.50	.65	.75	1.44	.75	1.00
Totals	$59,923	$60,405	$60,549	$60,584	$60,074	$60,886	$61,592	$61,598	$64,639	$65,649

AQUEDUCT.—Salt Lake City, Utah.—The contract for the construction of the City Creek Aqueduct, noted Feb. 17, was awarded to P. J. MORAN, at $25,192. The itemized bids of the different contractors: (A) Gillis Construction Co.; (B) L. C. Kelsey; (C) S. Birch & Sons Construction Co.; (D) P. J. MORAN (awarded contract); (E) Zerbe & Walker; (F) Fred Dreyer; (G) James Kennedy Construction Co.; (H) McKay & Reed, were as follows:

	A	B	C	D	E	F	G	H
3,025 cu. yds. excavation and back filling, Class 1.	$1.25	$1.50	$1.30	$1.02	$1.75	$1.43	$1.50	$1.60
2,675 cu. yds. excavation and back filling, Class 2.	1.25	1.00	.75	.85	.85	1.55	1.10	1.20
1,017 cu. yds. concrete in place, finished	10.00	13.35	14.40	15.20	12.75	12.45	14.00	18.00
35,250 lbs. steel reinforcing, in place	.08	.06	.045	.075	.06	.08	.055	.10
8 manhole covers, in place	15.00	25.00	22.00	12.00	20.00	20.00	23.00	22.00
4,048 lbs. fabricated material in place	.10	.07	.15	.11	.10	.20	.15	.15
Totals	$22,216	$24,746	$24,847	$25,192	$25,801	$26,257	$26,480	$32,170

U. S. POSSESSIONS.

ELECTRIC HOISTS.—Panama.—Bids were received as follows on Feb. 21, by the Isthmian Canal Commission, Washington, D. C., for furnishing 12 electric hoists, Type "A," alternate bids being asked on Type "B": The American Hoist & Derrick Co., St. Paul, Minn., (A) $925 each. The V. R. Browning Co., New York, $1,100 each, (B) $1,800. The Dobbie Foundry & Machine Co., 82 Warren St., New York, (A) $995 each, (B) $1,553 each. The Lenher Engineering Co., 149 Broadway, New York, (A) $925; (B) $1,160. The Lidgerwood Mfg. Co., 96 Liberty St., New York, (A) $979; (B) $1,565. The Mead-Morrison Mfg. Co., 11 Broadway, New York, (A) $915; $897.50; (B) $1,565.10; $1,552.50. Motley, Green & Co., 66 Broadway, New York, (A) $1,120; (B) $1,645. The Williamson Bros. Co., Philadelphia, (A) $1,125; (B) $1,550.

OIL.—Panama.—Bids were received as follows on Feb. 21 at the Isthmian Canal Commission, Washington, for furnishing the supply of lubricating oils to be used on the Canal during the period ending June 30, 1911, consisting of 75,000 gals. locomotive engine oil; 80,000 gals. valve oil; 80,000 gals. car oil; 20,000 gals. stationary engine oil; 25,000 gals. marine engine oil; 12,000 gals. air-compressor oil; 1,000 gals. gas engine oil. Bids were asked (a) on 5-gal. cans; (b) barrels; (c) drums: Chard & Howe, 253 Front St., New York, (a) $73,770; (b) $62,100. Crew Levick Co., Land Title Bldg., Philadelphia, (a) $81,215; (b) $70,960. Fiske Bros. Refining Co., New York, (a) $69,400; (b) $57,680. W. P. Fuller & Co., San Francisco, (a) $115,650; (b) $101,000. Manning, Maxwell & Moore, New York, (a) $125,431; (b) $104,921. Marine Oil Co., New Orleans, (a) $66,100; (b) $51,450. Motley, Green & Co., New York, "A," (a) $64,240; (b) $50,439; (c) $64,123; "B" (a) $110,678; (b) $96,878; (c) $110,561. New York Lubricating Oil Co., New York, "A" (a) $76,620; (b) $67,830; (c) $81,573; "B" (a) $75,125; (b) $66,335; (c) $80,013. Pigot, Sayre Co., 135 William St., New York, (a) $82,620; (b) $66,995; (c) $86,277. William C. Robinson & Son Co., Baltimore, (a) $68,865; (b) $60,075. L. Sonneborn Sons, New York, (a) $65,975; (b) $51,270; (c) $65,070. Stevenson Bros. Co., Philadelphia (New York delivery instead of Colon (a) $67,050; (b) $49,700. Texas Co., New York, (a) $65,270; (b) $63,550; (c) $66,735. Bliven & Carrington Co., 116 Broad St., New York, "A" (a) $77,585; (b) $68,132; "B" (a) $65,865; (b) $56,412. Indian Refining Co., Cincinnati, (a) $91,911; (b) $70,383. Union Petroleum Co., Philadelphia, (a) $65,550; (b) $58,690.

EXAMINATIONS.

ASSISTANT DIRECTOR.—New York.—Applications will be received until 4 p. m., March 4, for the position of Assistant Director, Diagnosis Bacteriological Laboratory, Dept. of Health. The examination will be held on March 29 at 10 a. m. Salary $1,800 a year. Minimum age, 21 years. Application blanks can be obtained at 299 Broadway, Room 1119. F. A. Spencer, Secy.

CLERK-DRAFTSMAN.—Cheyenne, Wyo.—The U. S. Civil Service Commission announces an examination on March 29-30 to secure eligibles from which to make certification to fill three vacancies in the position of Draftsman (female) in the Office of the Surveyor General, Cheyenne, Wyo., two at $4 a day each and the other at $1,200 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill any or all of the vacancies by reinstatement, transfer, or promotion. Both men and women will be admitted to this examination. Age limit, 18 years. Application form 1312.

MECHANICAL DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 29-30-31, to secure eligibles from which to make certification to fill eight vacancies in the position of Skilled Draftsman, at salaries ranging from $900 to $1,200 a year, in the Office of the Chief of Ordnance, War Department, and vacancies requiring similar qualifications as they may occur in that office, unless it shall be decided in the interests of the service to fill any or all of the vacancies by reinstatement, transfer, or promotion. Age limit, 18 years. Application form 1312. Applications must be filed prior to closing hour on March 18.

SCIENTIST IN SOIL SURVEY.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on April 6, to secure eligibles from which to make certification to fill a vacancy in the position of Scientist in Soil Survey (male), at a salary of $3,250 a year, or less, in the Bureau of Soils, Department of Agriculture, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. Competitors will not be assembled for any of the tests. Age limit, 20 years. Application form 304 and special form. Applications must be filed prior to closing hour on April 6.

SENIOR MECHANICAL AND OPTICAL DRAFTSMAN.—Philadelphia, Pa.—The U. S. Civil Service Commission announces an examination on March 29-30-31, to secure eligibles from which to make certification to fill a vacancy in the position of Senior Mechanical and Optical Draftsman at the Frankford Arsenal, Philadelphia, Pa., at $1,600 a year, and vacancies requiring similar qualifications as they may occur in the Ordnance Department at Large throughout the United States, unless it shall be decided in the interests of the service to fill the vacancy mentioned by reinstatement, transfer, or promotion. As an insufficient number of applicants was secured as the result of the examination for this position which was announced for Jan. 26-27-28, and which has been postponed to the dates mentioned above, qualified persons are urged to enter this examination. Age limit, 18 years. Application form 1312. Applications must be filed prior to closing hour on March 19.

INDUSTRIAL NOTES.

THE ASPHALT READY ROOFING CO. has removed its New York office to 9 Church St.

JOHN F. DOLAN, a railroad contractor, moved his offices from 170 Broadway, New York City, to 50 Church St., Hudson Terminal Bldg., March 1.

PRINCE & IZETT, consulting engineers, Denver, Colo., announce they have removed their offices to the Armstrong Bldg., 1520 Champa St., that city.

THE TRUSSED CONCRETE STEEL CO., through Hermann Fougner, engineer and sales agent, announces the removal of the New York office to larger quarters, 25 Madisan Square, North.

THE SECOND LARGEST SHIPLOAD of passengers entered the port of New York yesterday, when the "President Lincoln" arrived with a total of 3,619 passengers and crew.

NEW EQUIPMENT for the Globe, Ariz., plant of the Miami Copper Co. includes three 15-ton hand and electric cranes and one 5-ton crane, made by the Northern Engineering Works, Detroit, Mich.

THE WOOD DRILL WORKS, Paterson, N. J., have appointed Harold L. Bond Co., 26 Coenties Slip, New York, and 383 Atlantic Ave., Boston, Mass., their agent for the sale of wood rock drills in the New England States and New York State.

NELSON O. TIFFANY, JR., Assoc. M. Am. Soc. C. E., announces that the partnership of Tiffany & Gail has been dissolved. Mr. Tiffany will continue the business as civil and contracting engineer, 13 Erie County Bank Bldg., Buffalo, N. Y.

THE UNION SWITCH SIGNAL CO., manufacturers of railroad signals and interlocking devices, Swissvale, Pa., reports that its gross sales for the year 1909 increased $500,000 over 1908, but is still about half the high records reached in 1906 and 1907.

THE PENNSYLVANIA RAILROAD CO. has planted 3,482,186 trees since it undertook forestry work on a comprehensive scale. In 1909 alone, more than a million trees were planted on tracts of land along the right of way of the company. A third plant for treating ties with creosote is being erected.

THE PRATT IRON WORKS CO., Dayton, Ohio, announces that it recently secured orders for one 40,000,000-gal. and two 30,000,000-gal. Pratt turbine pumps for the Gary plant of the United States Steel Corporation. This is in addition to six turbine pumps of same type already installed and in service.

THE BUCYRUS STEAM SHOVEL CO., Bucyrus, Ohio, last week purchased the plant, good will and appurtenances of the Vulcan Steam Shovel Co., Toledo, Ohio. The question of seeking new quarters for the Vulcan Steam Shovel Co. has been under consideration for some time and it is believed that larger quarters will be secured and perhaps the plant will be located in some other place. The old works have been too small for the growing business of the concern for some time. In addition to making a line of

steam shovels, the Vulcan company made elevator buckets, dipper dredges and boiler fronts.

EXTENSIVE IMPROVEMENTS have been made in the lines and rolling stock of the Chicago City railroads. Already over 300 miles of surface railroad have been reconstructed, nearly 200 miles of conduits built and over 7,000,000 lbs. of copper used. It is expected that actual construction work on the subway will begin next Fall.

THE NEW CEMENT MILL of the United States Steel Corporation will have a yearly output of 2,000,000 barrels. It will be located at Buffington, Ind., adjacent to the present plants. This, with the other plants this interest is contemplating, will about double its present output, which is slightly less than 6,000,000 barrels a year.

THE BILLINGS-CHAPIN CO., and Billings, King & Co., Cleveland, Ohio, makers of "Driwal" for waterproofing concrete, say that the preparation contains chemical ingredients which neutralizes the alkali and renders the concrete non-absorbent. The foundation black of the same name can, it is said, be plastered on without the use of furring or lath when used inside. A full line of colors for use in coloring concrete blocks and stucco is also made.

THE GULICK-HENDERSON CO., Inspecting Engineers, Metallurgists and Chemists, Pittsburg, Chicago and New York, announce that Mr. J. W. Henderson has resigned as Treasurer to accept a position as manager of the Verona Works of the Standard Steel Car Co., formerly known as the General Castings Co. The metallurgical and foundry department of the Gulick-Henderson Co., which was in charge of Mr. Henderson will, in the future, be taken care of by Mr. W. G. Ireland.

HAROLD L. BOND CO., now located at 383 Atlantic Ave., Boston, advise us that its recent removal was necessitated by its growing business. The new store is more conveniently located than the old one, which was at 140 Pearl St. A full and complete line of contractor's tools and supplies for all forms of construction work will be carried in the new place. A separate corporation has been established in New York, located at 27 Coenties Slip, but trading under the same name. This business will be in charge of Mr. Howard O. Weaver, who has been engaged in contracting for the last ten years.

TIRES, RINGS AND FLANGES of considerably larger diameter and greater width than usual, will be rolled in the new mill of the Inter-Ocean Steel Co., 217 Railway Exchange, Chicago, Ill., with works at Chicago Heights. The company advises us that the plant, designed by Mr. Julian Kennedy especially for the purpose intended, will be ready to turn otu material about April 1. Locomotive and car wheel tires, roll shells, die rings for ore crushing machinery, forged and rolled weldless steel flange for use on high pressure piping and other rolled rings will be manufactured.

THE ABBEY-DODGE-BROOKS CONCRETE CO., 3 Passaic St., Newark, N. J., has recently ben appointed general Eastern agents for the R. Z. Snell concrete mixers made by the R. Z. Snell Mfg. Co., South Bond, Ind. The eastern agents will carry a full line of both hand and power mixers, and will be able to make prompt shipments to contractors in the territory. In the show room a line of machines will be kept especially for demonstrating purposes. In addition to the concrete mixers, the company will sell a line of concrete workers' supplies, including block machinery.

THE FIRST RAILWAY TUNNEL in America, driven by the use of machine drills, was the Musconetcong tunnel, on the line of the Lehigh Valley Railroad. The rock drills used in this work were built by one of the pioneer companies now comprising the Ingersol-Rand Co. This was visited early this month by a number of managers and sales agents after a meeting held in New York. The party, between forty and fifty, left New York in a private car, visited the tunnel, then went to Easton, Pa., and Phillipsburg, N. J. They then went to Painted Post, N. Y., where the drills and pneumatic tools made by this company, in that plant, were examined. The sales managers returned to New York by a special train the following day.

CHECKS FOR ALL OLD DEBTS are now being sent out by the Receivers of the Passaic Steel Co., Paterson, N. J. Many of these are for small amounts, for which only formal claims were made when the company went into the hands of the receivers Dec. 30, 1907. The assets of the old company are practically liquidated, only a few claims remaining. The business of the company has been taken over by the Passaic Structural Steel Co., which, in reality, is a holding company for the bondholders' committee. The receivers, John R. Lee, Oakland Cook and Wm. Arnold, all of Paterson, have sold the old company as a running concern. The New York office of the company was moved March 1 to 30 Church St., Hudson Terminal Bldg.

THE ALLIS-CHALMERS CO., Milwaukee, Wis., reports orders as follows: One 150-KW. generators for electric equipment of three mines of the Pittsburg Coal Co., Pittsburg, Pa.; motors and transformers for the Columbia Brick Co., Gresham, Ore.; motors and transformers for quarry machinery of the Kelley Island Lime & Transport Co., at Akron, N. Y., and Martin's Station, Ohio; two cross-compound engines and 600-K.V.A. alternating-current generators for the Ohio State Penitentiary, Columbus, O.; a cross-compound engine and a 1,000-K.V.A. generator for the automobile plant of Thos. B. Jeffery & Co., at Kenosha, Wis.; a Corliss engine and lumber working machinery for the new mill of the Westport Lumber Co., Westport, Ore.; a cross-compound engine and 800-KW. generator for the Cedar Rapids & Marion City Ry., Cedar Rapids, Ia.

THE SEQUOYAH ENGINEERING CO. is the style of a new engineering and contracting firm recently located in Fort Smith, Ark. The company will not confine its attention to that immediate vicinity but will operate in Arkansas, Texas, Colorado, Oklahoma and New Mexico being so situated that work in any of those states can be carried on to advantage. The president of the company, E. W. Gantt, was formerly located in Hot Springs and has had 25 years' experience in hydraulic and steam engineering. The secretary, J. P. Carter, was formerly connected with an engineering firm in New York City. The mechanical engineer of the company, V. Plumb, also the treasurer, was formerly located in Omaha and Hy. C. Jacobs, the vice-president, was, until recently, engaged as a steam and electrical engineer in Birmingham, Ala. The firm has already secured an important contract involving $60,000 in Oklahoma.

THE STEEL RAIL OUTPUT in 1909 was 3,062,582 tons, according to a recent bulletin of the American Iron and Steel Association. This was an increase compared with the production in 1908, which was 1,921,611 tons. A falling off, however, from the high records made in 1907 and 1908, is shown. The total make in these years was 3,633,654 tons and 3,977,887 tons, respectively. The year 1909 was notable in two respects. For the first time since statistics of rail production have been compiled by this association, no iron rails were rolled. The output of open hearth rails was the largest on record, 1,255,961 tons, or 38% of the total make. In 1908 the proportion of open hearth rails was less than 30% and in 1907 about 7%. Included in the 3,062,582 tons of steel rails rolled in 1909, are 50,505 tons of alloyed steel rails, as follows: Titanium rails, 35,945 tons; manganese rails, 1,028 tons; nickel-chrome rails, 12,287 tons; and nickel steel and electric steel rails, 1,245 tons. Of the 50,505 tons of alloyed steel rails produced in 1909, 36,809 tons were rolled from Bessemer steel, and 13,696 tons from alloyed open-hearth steel.

THE ALLIS-CHALMERS CO., of Milwaukee, Wis., announces that it has the contract for the entire hydro-electric equipment for the James White Power Co., of Athens, Ga., which has completed arrangements for the development of its water power site and will soon begin the work of construction. The Ambursen Hydraulic Construction Co., of Boston, has the contract for the reinforced concrete work. The plant will be as follows: Four 1,200-B.HP. twin open-flume turbines operating under a head of 50 ft., each directly connected to a 700-KW., 12,000-volt, 3-phase, 60-cycle, alternator. One 180-B.HP. single open-flume turbine operating under the same head and directly connected to a 100-KW. 120-volt exciter. Each unit will be equipped with an oil pressure hydraulic turbine governor which will make possible true parallel operation. Beside the turbine driven exciter there will be one 100-KW. motor-generator exciter set. Three 150-KW. and six 500-KW. oil filled self-cooled 12,000-2,200-volt transformers will give the necessary reduction in voltage. The San Francisco Bridge Co., which has the contract for the Pearl Harbor dry dock at Honolulu, has ordered the following crushing machinery from the Allis-Chalmers Co. for crushing stone for the concrete work: Two Gates rock breakers, one elevator with 68-ft. centers, one 40-in. × 20-ft. gates revolving screen with dust jacket, and one set of 40-in. × 15-in. Anaconda rolls. This machinery will be used in crushing the stone necessary for the concrete in the docks.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

		Noted in issue of
3- 5	Lighting, etc., Bloomington, Ind.	3- 3
3- 7	Generators, Fort Wayne, Ind.	3- 3
3- 7	Wiring, Chekalis, Wash	3- 3
3- 8	Cable, Toronto, Ont.	2-17
3- 9*	Power-house, Wheeling, W. Va.	2-10
3-15	Franchise, Sierra Madre, Cal.	2-17
3-15	Electric fixtures, Green Bay, Wis.	2-17
3-28	Franchise, Los Angeles, Cal.	3- 3
4- 6	Franchise, Hayward, Cal	3- 3

Bridges.

3- 7	Bridge extension, Topeka, Kan.	2-10
3- 7	Bridges, Bradentown, Fla.	2-10
3- 7	Bridge, Sylva, N. C.	2-10
3- 7	Raising span, etc., Oxford, N. C.	2- 3
3- 7	Bridge, Winnipeg, Man.	2-24
3- 7	Bridges, Leavenworth, Kan.	2-24
3- 7	Bridge, Derby, Ind.	2-24
3- 8	Bridge steel, Spokane, Wash	3- 3
3- 9	Bridges, Bloomington, Ind.	3- 3
3- 9	Bridge, Vincennes, Ind.	3- 3
3- 9	Bridges, Independence, Mo.	3- 3
3- 9*	Bridge, Ann Arbor, Mich.	2-17
3-11	Bridge work, Cincinnati, Ohio.	2-17
3-11	Bridge, Cincinnati, Ohio.	2-24
3-11	Bridge, Hutchinson, Kan.	2-24
3-12	Bridges, Edmonton, Alta.	2-17
3-14	Bridge, Savannah, Ga.	2- 3
3-14	Bridge, Clarksfield, Ohio.	3- 3
3-14*	Swing span, Snohomish, Wash.	3- 3
3-15	Bridges, Columbus, Neb	3- 3
3-15	Bridge work, St. Louis, Mo.	3- 3
3-16*	Bridge, Phoenix, Ariz	3- 3
3-16*	Substructure, etc., St. Joseph, Mich.	2-17
3-22*	Bridge, Shreveport, La	3- 3
4- 4	Bridge, Laporte, Ind	3- 3
4- 5	Bridge, San Jose, Cal.	3- 3
4- 5	Bridge, Castlerock, Wash.	2-24

Buildings.

3- 4	Post-office, Lead, S. Dak.	1-27
3- 5	Quarters, Ft. Robinson, Neb.	2-17
3- 7	Stable, Ft. Mackenzie, Wyo.	2-10
3- 7	Schools, Columbus, Ohio.	2-17
3- 7*	Buildings, Ft. Yellowstone, Wyo.	2-17
3- 7	School, Lawton, Okla.	2-24
3- 7	Building, Ottawa, Ont.	3- 3
3- 8	Hospital, Toronto, Ont.	3- 3
3- 9	Post-office, Athens, Ga.	1-27
3-10	Painting, etc., Duluth, Minn.	2- 3
3-10	Bakery, Jefferson Barracks, Mo. (Mfg. Pl.)	3- 3
3-11	Quarters, Ft. Benj. Harrison, Ind.	3- 3
3-11	Post-office, Jackson, Tenn.	2-10
3-12	Wire rope mill, Boston, Mass. (Mfg. Pl.)	2-10
3-12	Storehouse, Mt. Dade, Fla.	2-24
3-14*	Post-office, Frankfort, Ky.	2- 3
3-15*	Post-office, Denver, Colo.	1-27
3-15	Buildings, Ft. Bayard, N. Mex.	2-17
3-15	Building, Indianapolis, Ind.	2-27
3-15	Quarters, etc., Ft. McKinley, Me.	2-24
3-16	Post-office, Danville, Va.	2- 3
3-17*	Post-office, Richmond, Va.	2-10
3-18	Post-office, Rome, Ga.	2- 3
3-18	Ordnance shop, Ft. Wadsworth, N. Y. (Mfg. Pl.)	3- 3
3-19	Building, New York.	3- 3
3-21	Quarters, etc., Ft. D. A. Russell, Wyo	3- 3
3-21	Post-office, Lincoln, Ill.	2-17
3-22*	Post-office, Fremont, Neb.	2- 3
3-23	Quarters, Ft. Totten, N. Y.	3- 3
3-23*	Post-office, Connersville, Ind.	2-17
3-24	Post-office, Sacramento, Cal.	2- 3
3-25	Post-office, Lexington, Ky.	2-17
3-28*	Post-office, Quincy, Ill.	2-17
3-29	Post-office, Estherville, Ia.	2-17
3-30*	Court-house, Butte, Mont.	2- 3
3-30	Post-office, Peru, Ind.	3- 3
3-31	Post-office, Brainerd, Minn.	3- 3
4- 1	Buildings, Ft. Mason, Cal	3- 4
4- 1	Post-office, Hattiesburg, Miss.	3- 3
4- 5	Post-office, Independence, Mo.	3- 3

Water-Works.

3- 4	Well, Dallas, Tex	3- 3
3- 4	Water mains, Huron, S. Dak.	3- 3
3- 4	Pipe, Toledo, Ohio	3- 3
3- 7	Standpipe, Palo Alto, Cal.	3- 3
3- 7	Water meters, Los Angeles, Cal.	3- 3
3- 7	Mains, Vicksburg, Mass	3- 3
3- 7*	Chimney, Meadville, Pa.	2-17
3- 7*	Pump, St. Paul, Minn.	2-17
3- 7	Cisterns, Fort Morgan, Ala.	2-17
3- 7	Pump, Rock Island, Ill.	2-10
3- 7	Water-works, Midland, Tex.	2-24
3- 8	Sluice gates, etc., New York.	2-24
3- 8*	Steel conduit, Portland, Ore.	2-17
3- 8	Boiler house, Ft. Riley, Kan.	2-17
3-14	Pumping engine, Phoenix, Ariz.	2-10
3-14	Pipe, Saskatoon, Sask.	3- 3
3-14	Tank and tower, Fort Reno, Okla.	3- 3
3-14	Water bonds, Waterbury, Conn.	3- 3
3-15*	Boilers, Atlantic City, N. J.	3- 3
3-15	Water-works extension, Burlington, Wis.	2-17
3-19*	Dams, etc., Kiowa, Colo.	3- 3
3-21	Water-works extension, Columbus, Kan.	3- 3
3-21*	Steam engine, Galesburg, Ill.	3- 3
3-21	Standpipe, Saskatoon, Sask.	3- 3
3-21	Water tower, Faulkton, S. Dak.	3- 3
3-25*	Main, Lebanon, Pa.	3- 3

Sewers.

3- 4*	Sewer, Louisville, Ky.	2-17
3- 4	Sewers, Huron, S. Dak	3- 3
3- 4	Sewers, Rockford, Ill	3- 3
3- 4	Sewerage equip., Portsmouth, Va.	3- 3
3- 7	Sewer pipe, Grinnell, Iowa	3- 3
3- 7	Sewer system, Metropolis, Ill.	3- 3
3- 7	Sewers, Portchester, N. Y.	3- 3
3- 7*	Sewerage system, Fort Sill, Okla.	2-10
3- 7	Sewage pumping machinery, Orillia, Ont.	2-24
3- 9	Sewer, Binghampton, N. Y.	3- 3
3-10	Sewers, Plymouth, Wis.	2-24
3-10	Sewers, Ludington, Mich.	2-24
3-10	Sewers, Richmond, Ind.	2-24
3-10	Sewers, Glen Osborne, Pa.	2-17
3-15	Sewers, Burlington, Wis.	2-17
3-15	Sewers, Clinton, Okla	3- 3
3-16	Sewers, Madison, Fla.	2-24
3-17*	Sewers, Monticello, N. Y.	3- 3
3-23	Sewer franchise, Williamsburg, Va	3- 3
4- 1	Sewer system, Cleveland, Tenn.	2-17
4- 4	Culvert, Ashley, N. Dak.	2-10

Streets and Roads.

3- 4	Road, Cincinnati, Ohio.	2-17
3- 4	Road, Toledo, Ohio.	2-24
3- 5	Macadam, Ashland, Ohio.	2-24
3- 5	Paving, Racine, Wis.	2-24
3- 5	Street materials, Springfield, Mass.	3- 3
3- 5	Paving, Gallitzin, Pa.	3- 3
3- 5	Stone, Sandusky, Ohio.	3- 3
3- 7	Paving, Oklahoma City, Okla.	2-17
3- 7	Macadam, Hartford City, Ind.	2-24
3- 7	Stone road, Tipton, Ind.	2-24
3- 7	Road, Logansport, Ind.	2-24
3- 7	Pavement, etc., Omaha, Neb.	2-24
3- 7	Paving, Montgomery, Ala.	2-17
3- 7	Paving, Dothan, Ala.	2-10
3- 7	Roads, Oxford, N. C.	2- 3
3- 7	Macadam, Greenburg, Ind.	2-24
3- 7	Macadam, Columbus, Ind.	2-24
3- 7	Gravel road, Washington, Ind.	2-24
3- 7	Stone roads, paving, Marion, Ind.	2-24
3- 7	Macadam, Portchester, N. Y.	3- 3
3- 7	Pavement repairs, Jersey City, N. J.	3- 3
3- 7	Paving, Carmi, Ill.	3- 3
3- 7	Sidewalks, Grinnell, Ia.	3- 3
3- 7	Paving, St. Paul, Minn.	3- 3
3- 8	Macadam, etc., Olympia, Wash.	3- 3
3- 8	Sidewalk, Leesville, La.	3- 3
3- 8	Paving, Emporia, Kan.	3- 3
3- 8	Gravel road, Wabash, Ind.	2-24
3- 8	Stone, New York	2-24
3- 8	Gravel roads, Fowler, Ind.	2-24
3- 8	Paving, Pittsburg, Pa.	2-24
3- 8	Gravel road, Vincennes, Ind.	2-24
3- 8	Macadam, Paoli, Ind.	2-24
3- 8	Roads, Crawfordsville, Ind.	2-24
3- 8	Pavement, Waseca, Minn.	2-24
3- 9	Gravel road, Peru, Ind.	2-24
3- 9	Brick road, Muncie, Ind.	2-24
3- 9	Gravel road, Kokomo, Ind.	2-24
3- 9	Road, Basking Ridge, N. J.	3- 3
3- 9	Paving, Louisville, Ky.	3- 3
3-10	Road, Towson, Md.	3- 3
3-10	Paving, Ft. Morgan, Ala.	3- 3
3-10	Paving, Mankato, Minn.	3- 3
3-10	Paving, Plymouth, Wis.	2-24
3-10*	Sidewalks, Pensacola, Fla.	2-10
3-11	Gravel road, Brazil, Ind.	2-24
3-11	Gravel road, Brazil, Ind.	3- 3
3-11	Road machinery, Minneapolis, Minn.	3- 3
3-12	Gravel road, La Fayette, Ind.	3- 3
3-12	Stone roads, Laporte, Ind.	3- 3
3-12	Paving, Orrville, Ohio.	2-24
3-12	Macadam, Laporte, Ind.	2-24
3-14	Paving, Caney, Kan.	2-17
3-14	Paving, Oil City, Pa.	3- 3
3-14	Grading, Wenasha, Wis.	3- 3
3-15	Paving, Sylvania, Ohio.	3- 3
3-15	Gravel road, Danville, Ind.	3- 3
3-15	Roads, Gordon, Ala.	1-13
3-15	Paving, Burlington, Wis.	2-24
3-17*	Paving, Corning, N. Y.	2-10
3-21	Paving, Mt. Clemens, Mich.	3- 3
3-22	Walks, Canton, Ohio.	2-24
3-25	Road, Cincinnati, Ohio.	3- 3
3-30	Paving, Raleigh, N. C.	2-10
4-12	Macadam, St. Paul, Minn.	3- 3

Miscellaneous.

3- 4	Drainage, Woodstock, Ill.	3- 3
3- 4	Piles, etc., New Orleans, La.	3- 3
3- 5	Wagons, Washington Barracks, D. C.	2-24
3- 5*	Iron, steel, Dallas, Tex.	2- 3
3- 5	Piers, Charleston, S. C.	2- 3
3- 7	Ditches, Eldora, Iowa	1-27
3- 7	Ditch, Columbus, Ohio.	2-17
3- 7	Riprap, Fort Wetherill, R. I.	2-24
3- 7	Fill-in privilege, New York.	3- 3
3- 8	Retaining wall, Bristol, Conn.	2-17
3- 9*	Dredging, Savannah, Ga.	2-17
3-10*	Ditch, Warrensburg, Mo.	2-10
3-10	See Brownwood North & South Ry.	3- 3
3-10	Telegraph equip., Regina, Sask.	3- 3
3-10	Shelter, New York	3- 3
3-10	Cribwork, New York.	3- 3
3-10	Wharf, Angel Island, Cal.	3- 3
3-12	Wagon scales, New York.	3- 3
3-12	Repairing launch, Jackson Barracks, La.	2-17
3-12*	Removing wrecks, Boston, Mass.	2-17
3-14*	Cement, etc., Wash., D. C.	2-17
3-14	Steel, bolts, etc., Wheeling, W. Va.	3- 3
3-15	See Intercolonial Ry.	3- 3
3-16	Track elevation, Fort Wayne, Ind.	3- 3
3-16	Moving stones, Portland, Me.	2-17
3-18	Dredging, Wilmington, Del.	2-24
3-18	Levee, Memphis, Tenn.	3- 3
3-21*	See Abilene Central R. R.	3- 3
3-21	Dredging, Brunswick, Ga.	2-24
3-23	Revetment, Ft. Screven, Ga.	3- 3
3-24*	Cement, Duluth, Minn.	3- 3
3-24	Derrick boats, Wheeling, W. Va.	3- 3
3-26	Ditches, Bluffton, Ind.	3- 3
3-29*	Dredging, New York	3- 3
3-29	Barge Canal, Albany, N. Y.	2-24
3-30	Snagboat, Wheeling, W. Va.	3- 3
4- 1*	Dredging, New York	3- 3
4- 1	Torpedo boats, Wash., D. C.	2- 3
4- 4	Culverts, Ashley, N. Dak	2-10
4-15	See Algoma Central & Hudson Bay Ry.	3- 3
4-30	Ditch, Olivia, Minn.	12-23

Examinations.

3- 4	Asst. Director, New York.	3- 3
3- 9	Junior Animal Husbandman, Wash., D. C.	2-10
3- 9	Chemist, Wash., D. C.	2-10
3- 9	Topographic draftsmen, Wash., D. C	1-27
3-16	Plant Pathologist, Wash., D. C.	2-17
3-16	Laboratory Aid, Wash., D. C.	2-17
3-16	Cement Tester, Philippines.	2-17
3-16	Assistant, Wash., D. C.	2-17
3-29	Mechanical and Optical Dftsman, Philadelphia, Pa	3- 3
3-29	Clerk-Draftsman, Cheyenne, Wyo.	3- 3
3-29	Mechanical Dftsman, Wash., D. C.	3- 3
3-30	Scientific Asst., Wash., D. C.	2-10
4- 6	Scientist in Soil Survey, Wash., D. C.	3- 3

Plans and Specifications on File.

3- 5	Piers, Charleston, S. C. (S.)	2- 3
3- 7*	Macadam, Port Chester, N. Y. (S.)	3- 3
3- 8*	Conduit, Portland, Ore. (S.)	2-17
3-12	Wire rope mill, Boston, Mass. (S.)	2-10
3-17*	Sewers, Monticello, N. Y (P. & S.)	3- 3

TRADE PUBLICATONS.

CAR COUPLERS.—The McConway & Torley Co., Pittsburg, Pa. Paper; 6 x 9 ins.; pp. 7; illustrated.

The Janney X coupler, described in this pamphlet, has been developed to meet all the requirements of the safety-appliance law while retaining the simplicity of the original Janney coupler with a vertical locking pin. Uncoupling and knuckle-opening are effected from the sides of the car, and there is a "lock-to-the-lock," or auxiliary lock to the knuckle-locking device to prevent accidental uncoupling in the train. A lock-set is provided also to hold the lock in the uncoupled position, while cars are being switched in the yards.

DOUBLE-ACTING DOOR CHECK.—Yale & Towne Manufacturing Co., 9 Murray St., New York City. Paper; 3⅝ × 8¼ ins.; pp. 10; illustrated.

It describes the Yale double-acting door check, which is designed to do for double-acting doors what the Blount door check (made by the same company) does for single-acting doors. It is said to close them quickly and firmly without any "flip-flop-flapping."

HEAT STORAGE.—American Regenerator Co., Monadnock Block, Chicago, Ill. Paper; 6 × 9 ins.; pp. 15; illustrated.

This publication discusses again the work which may be obtained from the steam exhausted from non-condensing engines, and the increase in efficiency of developing power by the combination of reciprocating engines and steam turbines. The specialty of this company is what is known as the American Regenerator, a new design of tank containing hot water which absorbs heat from the exhaust steam at times when the quantity of exhaust exceeds the demands of the turbine. The stored heat is later given out as steam at low pressure when the demands of the turbine are greater than the supply of exhaust steam. The performance of the American Regenerator is shown, and the design is described rather generally and briefly.